#1

July 28, 2016 Reference No. 013926

Ms. Yvonne O. Jones
Remedial Project Manager
US EPA, REGION 4
Waste Management Division
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960

Dear Ms. Jones:

Re: Semi-Annual Groundwater Monitoring and SVE Emission Monitoring
Aqua-Tech Environmental, Inc. Superfund Site
Greer, Spartanburg County, South Carolina

GHD conducted the semi-annual groundwater monitoring at the Aqua-Tech Environmental, Inc. Superfund Site (Site) in accordance with the approved Remedial Design Work Plan dated September 2006. Groundwater monitoring was performed in the two separate areas of the Site as follows:

- Administration Area (northeast portion of the Site); and
- Downgradient Area (western portion of the Site).

This letter summarizes the sampling procedures and results of the post-injection performance monitoring at the Administrative Area and the Monitored Natural Attenuation (MNA) groundwater monitoring at the Downgradient Area, and the air sampling from the soil vapor extraction (SVE) system, conducted in April 2016.

Introduction

Administration Area

The April 2016 event was completed as part of the semi-annual sampling program following the March 2011 full-scale ISCO injection at the former Administrative Area. The injection locations and subsequent monitoring wells are presented on Figure 1. The April 2016 sampling event was the twelfth post-injection groundwater monitoring event which has been conducted since March 2011.

Downgradient Area

Wells in and around the Downgradient Area (area south of MW-12, MW-11A, MW-41, MW-42, etc.) including select monitoring wells from all three water bearing units, are included in the MNA assessment as shown on Figure 2. Based on the recommendations presented in the Final

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REGISTERED COMPANY FOR ISO 9001 ENGINEERING DESIGN

Construction Report, Part II, groundwater sampling of select monitoring wells for MNA evaluation is performed to monitor the natural attenuation rate in the groundwater at the Downgradient Area.

SVE Emission Testing

Routine semi-annual monitoring of the emissions from the SVE system was conducted, pursuant to the operation and maintenance (O&M) plan for the continuous operation of the SVE system.

Groundwater Monitoring

The depth to groundwater was measured in all Site monitoring wells during this sampling event (April 2016) and the measurements are summarized in Table 1. The groundwater elevation maps generated based on the April 11, 2016 groundwater elevations are presented on Figures 3A, 3B and 3C for the saprolite, shallow bedrock and bedrock water bearing units, respectively. Groundwater flow direction in all these units was consistent with previous monitoring events.

Groundwater Sampling

Groundwater sampling activities were conducted in general accordance with the recommendations provided in United States Environmental Protection Agency (USEPA) Region IV Field Branches Quality Systems and Technical Procedures (FBQSTP), Science and Ecosystem Support Division (SESD) Procedure Number SESDPROC-301-R3 (Groundwater Sampling). Each sampling location was purged under low-flow conditions using a bladder pump fitted with dedicated ¼-inch outer diameter (¼"-OD) polyethylene tubing. Field parameters (i.e., temperature, conductivity, turbidity, dissolved oxygen [DO], pH, and oxidation-reduction potential [ORP]) were measured in the flow-through cell of a calibrated, multi-parameter water quality meter[1]. Flow rates were maintained within a range of 40 milliliters per minute (mL/min) to 70 mL/min and depths to groundwater were measured to monitor drawdown. Stabilization of the field parameters indicated entry of representative formation water into the screened interval. Upon stabilization, sampling was performed with the same equipment used for purging. Monitoring well MW-7A was purged using the multi-volume purging method due to the significant drawdown that occurred during the low-flow method. Records of the monitoring well low-flow and multi-volume purging for the April 2016 monitoring event are included in Attachment A. Samples were collected directly into laboratory supplied pre-cleaned sample jars. All groundwater samples were preserved in ice-filled coolers and picked up by Analytical Environmental Services, Inc. (AES) courier service; the samples were relinquished to the courier under standard chain of custody (COCs) protocols.

Blind duplicate samples were collected from monitoring wells MW-32 (GW-013926-041216-MRB-003) and MW-35 (GW-013926-041316-MRB-008) and one matrix spike/matrix spike duplicate (MS/MSD) sample was collected from MW-13 (GW-013926-041216-SAG-103) and submitted to AES for quality assurance/quality control (QA/QC) purposes.

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1 Horiba U-53 Multi-parameters Water Quality measuring instrument.

Performance Groundwater Monitoring - Administrative Area

Pre- and post-injection groundwater sampling was performed at the Administrative Area (full-scale ISCO) in the injection zone. The pre- and post-injection groundwater performance monitoring sampling was conducted at monitoring well locations MW-27, MW-28, MW-32, MW-39 and MW-40. The groundwater performance monitoring locations are illustrated on Figure 1.

Each groundwater sample was analyzed for the following parameters:

- Field parameters (i.e., pH, conductivity, oxidation-reduction potential [ORP], dissolved oxygen [DO] and temperature);
- Volatile organic compounds (VOCs) + 1,4-dioxane and target analyte list (TAL) metals; and
- Geochemical parameters.

Analytical Results

During this event, PCE concentrations were reported more than 50 percent (%) lower than concentrations prior to the full-scale injection. PCE concentrations decreased between 50 to 67 percent (%) in monitoring wells MW-27 (600 micrograms per liter [µg/L]), MW-28 (900 µg/L) and MW-32 (960 µg/L) compared to the baseline pre-injection concentrations. Concentrations have been generally stable in the injection area wells with minor variations. Concentrations of PCE in the downgradient well MW-39 continue to trend lower with the exception of this sampling event; the concentration of PCE in MW-39 shows up to 72% reduction as compared to the pre-injection concentrations.

TCE concentrations in all monitoring wells started low (at or below 13 µg/L). TCE concentrations in MW-27, MW-28 and MW-32 show up to 66 % reduction as compared to the pre-injection concentrations. 1,4-dioxane was reported below the reporting limit of 150 µg/L for all five locations.

Concentrations of sodium and sulfate show a decreasing trend at all monitoring locations. During this sampling event, concentrations of sodium ranged from 60.4 mg/L (MW-28) to 6.38 mg/L (MW-40) and sulfate concentrations ranged from 13 mg/L to 10 mg/L.

The groundwater analytical results for all pre- and post-injection events are summarized in Table 2. The sample keys, data quality assessment and validation memorandums, and complete analytical data reports for the April 2016 post-injection groundwater sampling event are included in Attachment B.

Summary of Results

Reductions in PCE concentrations ranged from 50 % in monitoring MW-28 to 80 % in monitoring location MW-40. PCE concentrations within the injection area encompassing MW-27, MW-28, and MW-32 have remained stable. Comparison of the concentrations of select parameters prior to and following the ISCO injection is presented in Table 3. PCE concentrations in downgradient monitoring wells MW-39 and MW-40 were lower or stable suggesting the original source area is not contributing to degradation of the downgradient groundwater.

DO concentrations ranged from 0 mg/L at MW-27 to 5.28 mg/L at MW-28; ORP values ranged from 195 mV at MW-32 to 335 mV at MW-27 in groundwater samples.

The pre- and select post-injection groundwater VOC detections in the former Administrative Area are presented on Figure 4.

The groundwater monitoring data indicate that the on-going chemical oxidation of VOCs has slowed down, as anticipated based on elapsed time since the last injection. Based on the overall results of the ISCO injection, chemical oxidation of VOCs in groundwater using activated sodium persulfate was successful and substantially reduced residual VOC mass from the groundwater in the Administration Area. Although still significantly below pre-injection concentrations, variations in PCE concentrations were observed during this post-injection monitoring event at MW-27 (600 µg/L), MW-28 (900 µg/L), MW-32 (950 µg/L), MW-39 (94 µg/L) and MW-40 (14 µg/L). Impacted groundwater remains confined to the limits of the landfill properties.

Monitored Natural Attenuation Monitoring - Downgradient Area

MNA was proposed as part of the long-term Site-wide groundwater remedy, particularly for the Downgradient Area. The monitoring wells sampled for the MNA assessment are shown on Figure 2. The following monitoring wells from each water-bearing unit were included in the semi-annual groundwater monitoring program:

- Saprolite unit - MW-3, MW-4, MW-11, MW-12, MW-14, MW-35, MW-42, and TW-2;
- Shallow bedrock unit - MW-7A, MW-10A, MW-13, and MW-41; and
- Bedrock unit - MW-4A and MW-11A.

Analytical Results

The following parameters were analyzed during this event as part of the MNA program:

- TCL VOCs + 1,4-dioxane;
- Dissolved gases (ethane, ethane and methane);
- General chemistry parameters; and
- Field parameter (pH, DO, ORP, Temp and Conductivity).

VOC detections in groundwater for the MNA assessment are summarized in Tables 4A, 4B and 4C for the Saprolite and Shallow Bedrock and Bedrock units, respectively and are illustrated on Figures 5A through 5D.

Within the saprolite unit, concentrations of parent compounds and their degradation products have shown a decrease in multiple monitoring wells since the February 2011 sampling event. Reduction of TCE was observed at MW-12, MW-35, and MW-42 since the Baseline Sampling; the highest TCE reduction (approximately 90%) was seen at MW-12. Concentrations of cis-1,2-DCE decreased at MW-3, MW-11, MW-12, MW-35 and MW-42 since February 2011, with the highest drop (more than 80%) occurred at MW-12 and MW-42.

General observation shows that concentrations tend to decrease along the groundwater flow path between MW-12 (north) and MW-4 (south) with the exception of MW-42. Concentrations reported in MW-42 remain elevated versus up and down gradient monitoring wells. These concentrations may be due to a localized historic release; however, observed impacts remain very limited.

In the Shallow Bedrock, concentrations of select COCs (PCE, TCE and cis-1,2-DCE) reported at MW-13 and MW-41 were generally similar to prior results showing a downward trend. Concentrations decrease along the groundwater flow path in the shallow bedrock from MW-13 to MW-10A. The decrease in the COCs at MW-13 without a corresponding increase in the downgradient well MW-10A may be evidence that natural attenuation via biodegradation is on-going at the Site.

In the bedrock, concentrations of COCs have generally stayed the same in MW-4A and a reduction of cis-1,2-DCE, PCE and TCE was observed at MW-11A. Concentrations furthest downgradient at MW-4A were generally below detection limits with few exceptions, indicating that concentrations are decreasing along the groundwater flow path.

The overall redox (ORP) data at the wells sampled indicate that there is an oxidizing condition in all three aquifer units. The presence of methane in select monitoring wells (MW-4, MW-7A, MW-10A, MW-11, MW-11A, MW-35, and MW-42) indicates that natural conditions may be reducing in the area. The highest methane concentration was reported at MW-7A (1,800 µg/L).

Concentrations of total organic carbon (TOC) in the source area groundwater, which serves as the substrate (food source) for the microbes, is at or below 5 mg/L and TOC in the background wells in the saprolite are slightly conducive (above 1 mg/L). These values are generally lower than the 20 mg/L that the EPA recommends for robust biodegradation.

The results of this natural attenuation evaluation indicate that biodegradation of COCs is on-going and that natural attenuation processes at the Site are limiting the downgradient migration of COCs. However, the ability of the local microbial population to degrade the COCs may be limited by the available organic carbon in the groundwater at the Site.

The sample keys, data quality assessment and validation memorandums, and complete analytical data reports for the April 2016 MNA assessment groundwater sampling event are included in Attachment B.

SVE System Emission Testing

The most recent emission test was conducted on April 11, 2016. During this event, the air sample was collected and analyzed from the combined flow from all 40 SVE wells. The sample was collected from the sample port located prior to the granular-activated carbon (GAC) units at a flow rate of approximately 370 standard cubic feet per minute (scfm). A figure illustrating the location of the wells and the associated well headers is provided as Figure 6.

The air sample was collected in a 1.5 liter Summa canister which was provided by Analytical Environmental Services (AES). The sample was analyzed for volatile organic compounds (VOCs) using USEPA Method TO-15. The average hourly and monthly emission rates for VOCs and hazardous air pollutants (HAPs) were calculated using the flow rate and the analytical result for each compound. The emission rates were calculated for each detected compound and the averages were summed over the entire list of detected VOCs and HAPs to obtain an average total emission rate based on each sample. Attachment C shows the calculations for the April 2016 event. The laboratory report is provided as Attachment D.

The estimated average emission rates of VOCs and HAPs from all headers for this and the last three semi-annual sampling events are summarized below:

All Headers

	October 16, 2014 Pre-Carbon Treatment	March 18, 2015 Pre-Carbon Treatment	October 27, 2015 Pre-Carbon Treatment	April 11, 2016 Pre-Carbon Treatment
Lbs VOCs/hr	0.050	0.111	0.024	0.010 [2]
Lbs HAPs/hr	0.011	0.025	0.005	0.007

In general, emission rates of VOCs and HAPs have stabilized and remain similar to the previous events. The emission rates since October 2010 are presented on the graph provided as Figure 7 to show the trends with time.

Recovery of VOCs has diminished; however, GHD anticipates further reductions are achievable and will continue operation of the SVE system utilizing flow from all 40 SVE wells. During the next sampling event, the air sample will be collected after the system runs for at least 24 hours after purging the condensate from the traps, if any, and system start-up. On/off cycling of the SVE system may be considered to improve recovery if the current recovery rate remains stable. Pursuant to the O&M plan, the next sampling event is tentatively scheduled to coincide with the semi-annual groundwater monitoring event.

The next round of ISCO and MNA groundwater monitoring and SVE emission testing is tentatively scheduled for October 2016.

Please contact the undersigned at (770) 441-0027 if you have any questions or comments regarding the above.

Sincerely,

GHD Services Inc.

Terefe Mazengia, PG.

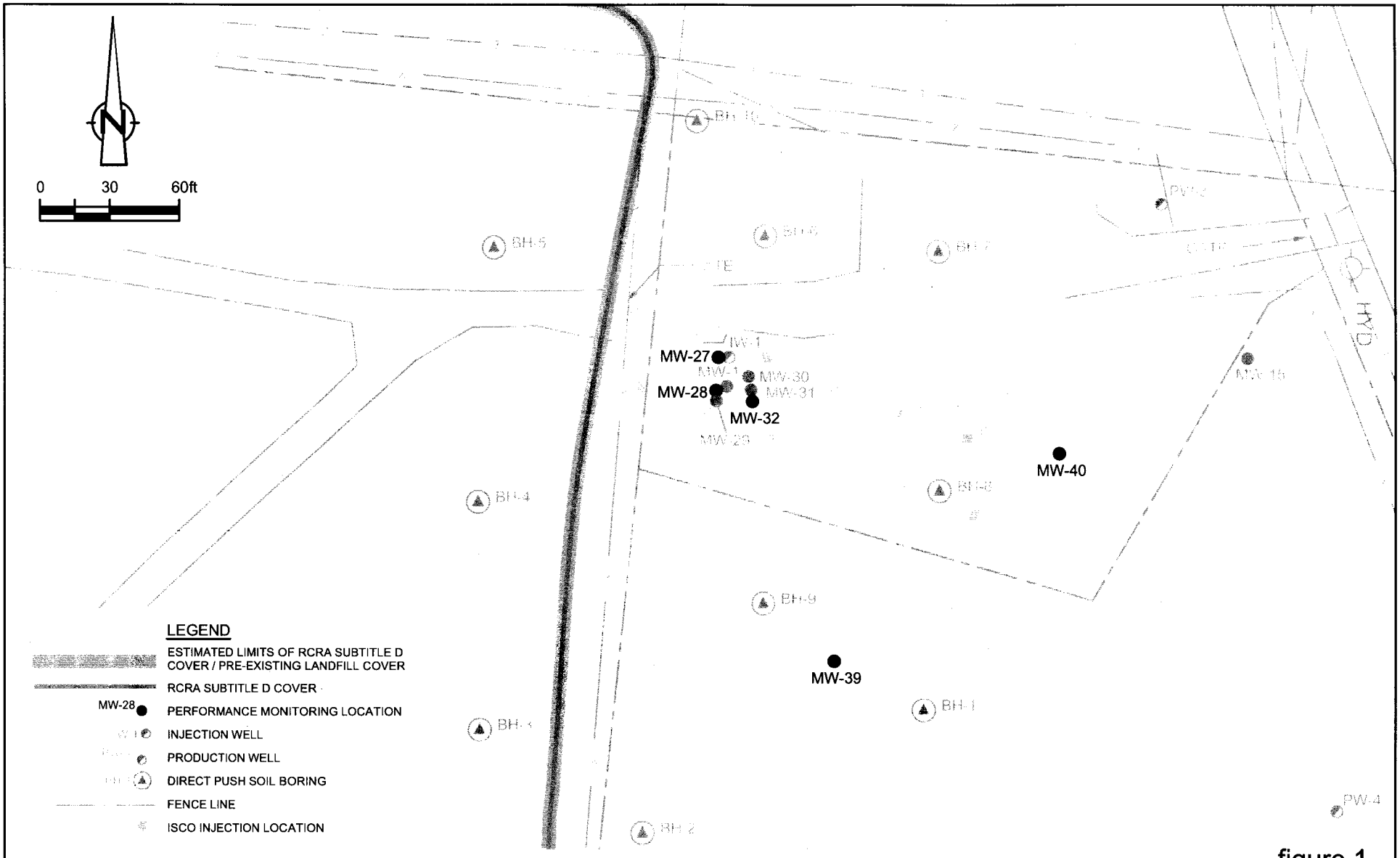
R. T. (Bob) Pyle

TM/tb/
Encl.

cc: Kayse Jarman, SCDHEC
Steve Anastos, Exxon Mobil
Amy Magee, King & Spalding

[2] THC as gas was inadvertently left out of the analysis list for TO-15 in the April 2016 sample.

Figures



NOTE:
1. THE LOCATION OF INJECTION POINTS IS APPROXIMATE.
2. GROUNDWATER MONITORING SAMPLES COLLECTED FROM MONITORING WELL LOCATIONS: MW-27, MW-28, MW-32, MW-39, AND MW-40.

SOURCE: TRIAD SURVEYORS, INC. BOUNDARY SURVEY DATED 10/31/2011.

figure 1

POST INJECTION AND MONITORING LOCATIONS
AQUA-TECH ENVIRONMENTAL, INC.
Greer, South Carolina

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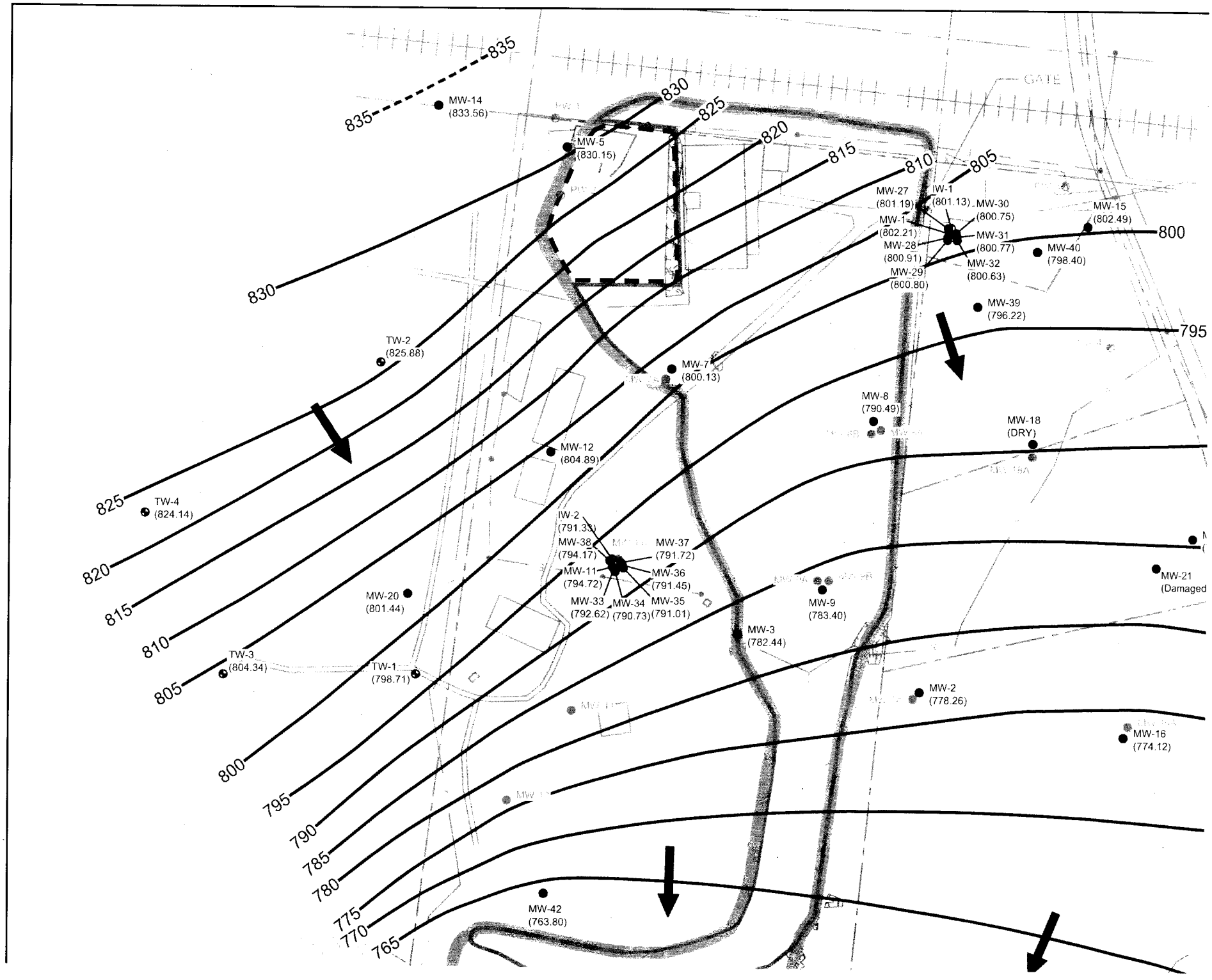
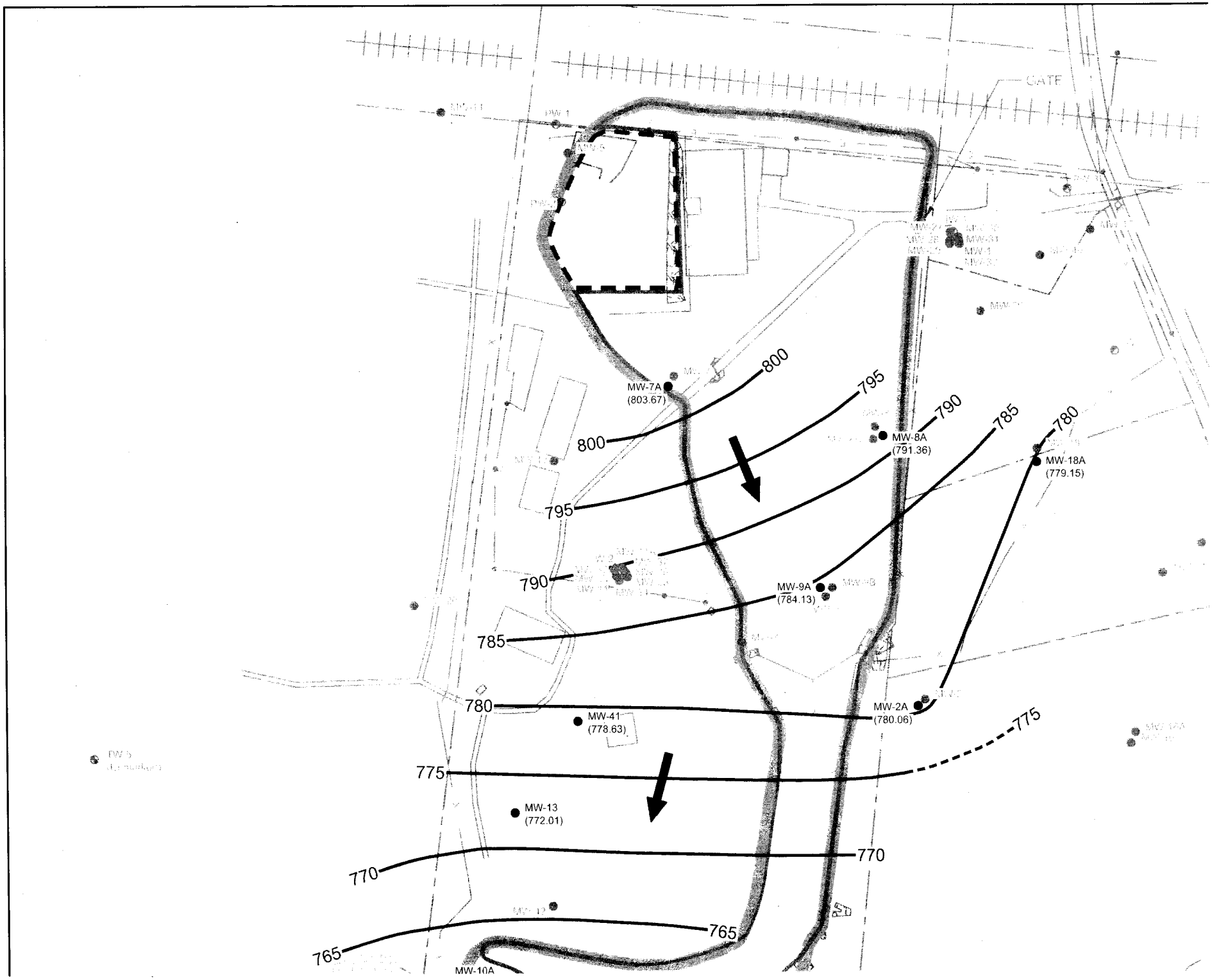
GATE
MW-7A
MW-11A
MW-41
MW-13


835
835
MW-14
(833.56)
830
825
820
815
810
805
800
795
790
785
780
775
770
765
MW-5
(830.15)
830
TW-2
(825.88)
825
TW-4
(824.14)
820
815
810
805
TW-3
(804.34)
TW-1
(798.71)
800
795
MW-20
(801.44)
MW-12
(804.89)
MW-7
(800.13)
IW-2
(791.33)
MW-38
(794.17)
MW-37
(791.72)
MW-11
(794.72)
MW-36
(791.45)
MW-33
(792.62)
MW-34
(790.73)
MW-35
(791.01)
MW-42
(763.80)
MW-3
(782.44)
MW-27
(801.19)
IW-1
(801.13)
MW-30
(800.75)
MW-1
(802.21)
MW-31
(800.77)
MW-28
(800.91)
MW-32
(800.63)
MW-29
(800.80)
MW-15
(802.49)
MW-40
(798.40)
MW-39
(796.22)
MW-8
(790.49)
MW-18
(DRY)
MW-9
(783.40)
MW-2
(778.26)
MW-16
(774.12)
MW-21
(Damaged
GATE


GATE
MW-7A
(803.67)
MW-8A
(791.36)
MW-18A
(779.15)
MW-9A
(784.13)
MW-2A
(780.06)
MW-41
(778.63)
MW-13
(772.01)
MW-10A
800
795
790
785
780
775
770
765

GATE
MW-8B
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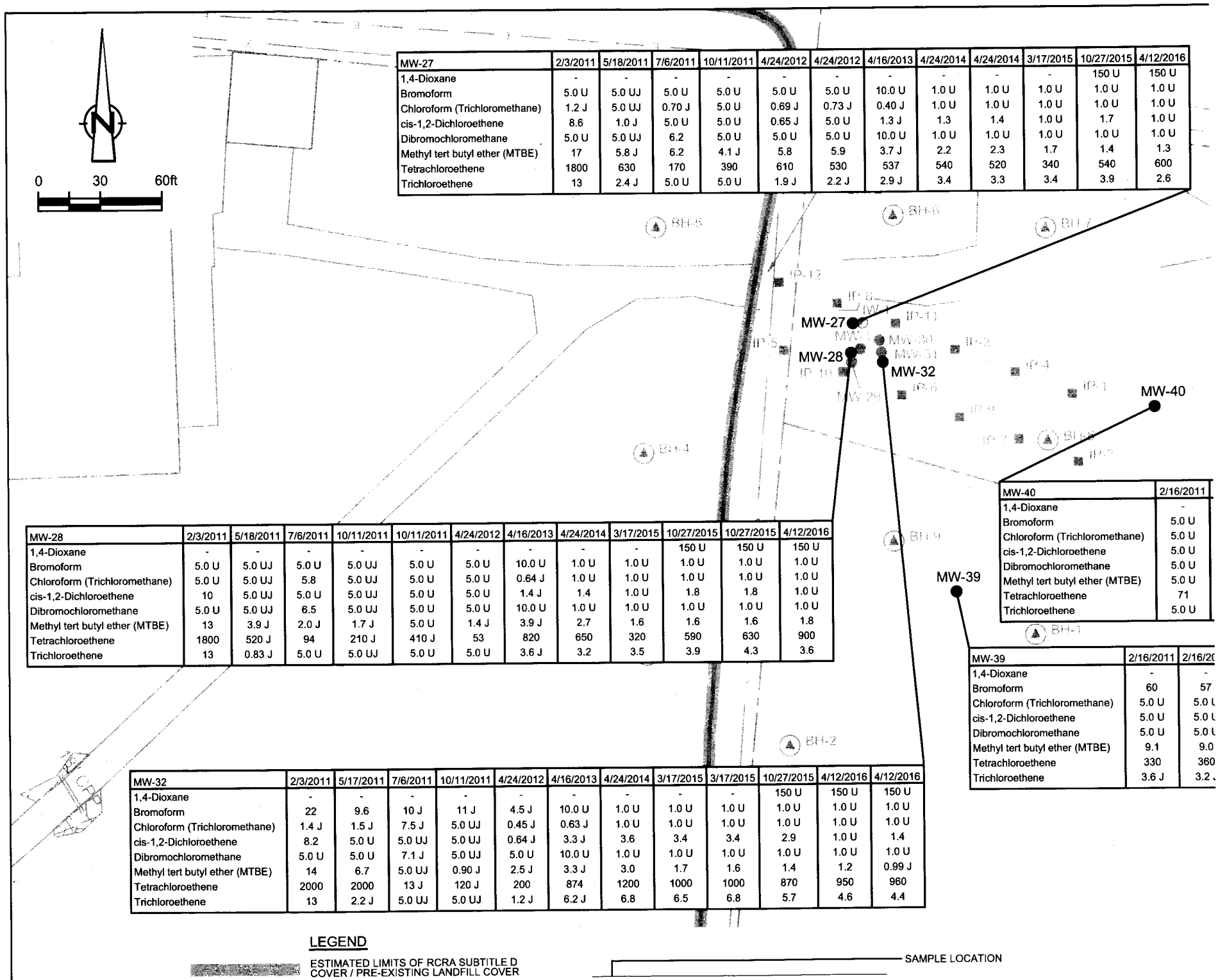
MW-11A
(800.71)
MW-9B
(782.77)
795
790
785
780
775
800



MW-27	2/3/2011	5/18/2011	7/6/2011	10/11/2011	4/24/2012	4/24/2012	4/16/2013	4/24/2014	4/24/2014	3/17/2015	10/27/2015	4/12/2016
1,4-Dioxane	-	-	-	-	-	-	-	-	-	-	150 U	150 U
Bromoform	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	1.2 J	5.0 UJ	0.70 J	5.0 U	0.69 J	0.73 J	0.40 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	8.6	1.0 J	5.0 U	5.0 U	0.65 J	5.0 U	1.3 J	1.3	1.4	1.0 U	1.7	1.0 U
Dibromochloromethane	5.0 U	5.0 UJ	6.2	5.0 U	5.0 U	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	17	5.8 J	6.2	4.1 J	5.8	5.9	3.7 J	2.2	2.3	1.7	1.4	1.3
Tetrachloroethene	1800	630	170	390	610	530	537	540	520	340	540	600
Trichloroethene	13	2.4 J	5.0 U	5.0 U	1.9 J	2.2 J	2.9 J	3.4	3.3	3.4	3.9	2.6

MW-28	2/3/2011	5/18/2011	7/6/2011	10/11/2011	10/11/2011	4/24/2012	4/16/2013	4/24/2014	3/17/2015	10/27/2015	10/27/2015	4/12/2016
1,4-Dioxane	-	-	-	-	-	-	-	-	-	150 U	150 U	150 U
Bromoform	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	5.0 U	5.0 UJ	5.8	5.0 UJ	5.0 U	5.0 U	0.64 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	10	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	1.4 J	1.4	1.0 U	1.8	1.8	1.0 U
Dibromochloromethane	5.0 U	5.0 UJ	6.5	5.0 UJ	5.0 U	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	13	3.9 J	2.0 J	1.7 J	5.0 U	1.4 J	3.9 J	2.7	1.6	1.6	1.6	1.8
Tetrachloroethene	1800	520 J	94	210 J	410 J	53	820	650	320	590	630	900
Trichloroethene	13	0.83 J	5.0 U	5.0 UJ	5.0 U	5.0 U	3.6 J	3.2	3.5	3.9	4.3	3.6

MW-32	2/3/2011	5/17/2011	7/6/2011	10/11/2011	4/24/2012	4/16/2013	4/24/2014	3/17/2015	3/17/2015	10/27/2015	4/12/2016	4/12/2016
1,4-Dioxane	-	-	-	-	-	-	-	-	-	150 U	150 U	150 U
Bromoform	22	9.6	10 J	11 J	4.5 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	1.4 J	1.5 J	7.5 J	5.0 UJ	0.45 J	0.63 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	8.2	5.0 U	5.0 UJ	5.0 UJ	0.64 J	3.3 J	3.6	3.4	3.4	2.9	1.0 U	1.4
Dibromochloromethane	5.0 U	5.0 U	7.1 J	5.0 UJ	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	14	6.7	5.0 UJ	0.90 J	2.5 J	3.3 J	3.0	1.7	1.6	1.4	1.2	0.99 J
Tetrachloroethene	2000	2000	13 J	120 J	200	874	1200	1000	1000	870	950	960
Trichloroethene	13	2.2 J	5.0 UJ	5.0 UJ	1.2 J	6.2 J	6.8	6.5	6.8	5.7	4.6	4.4

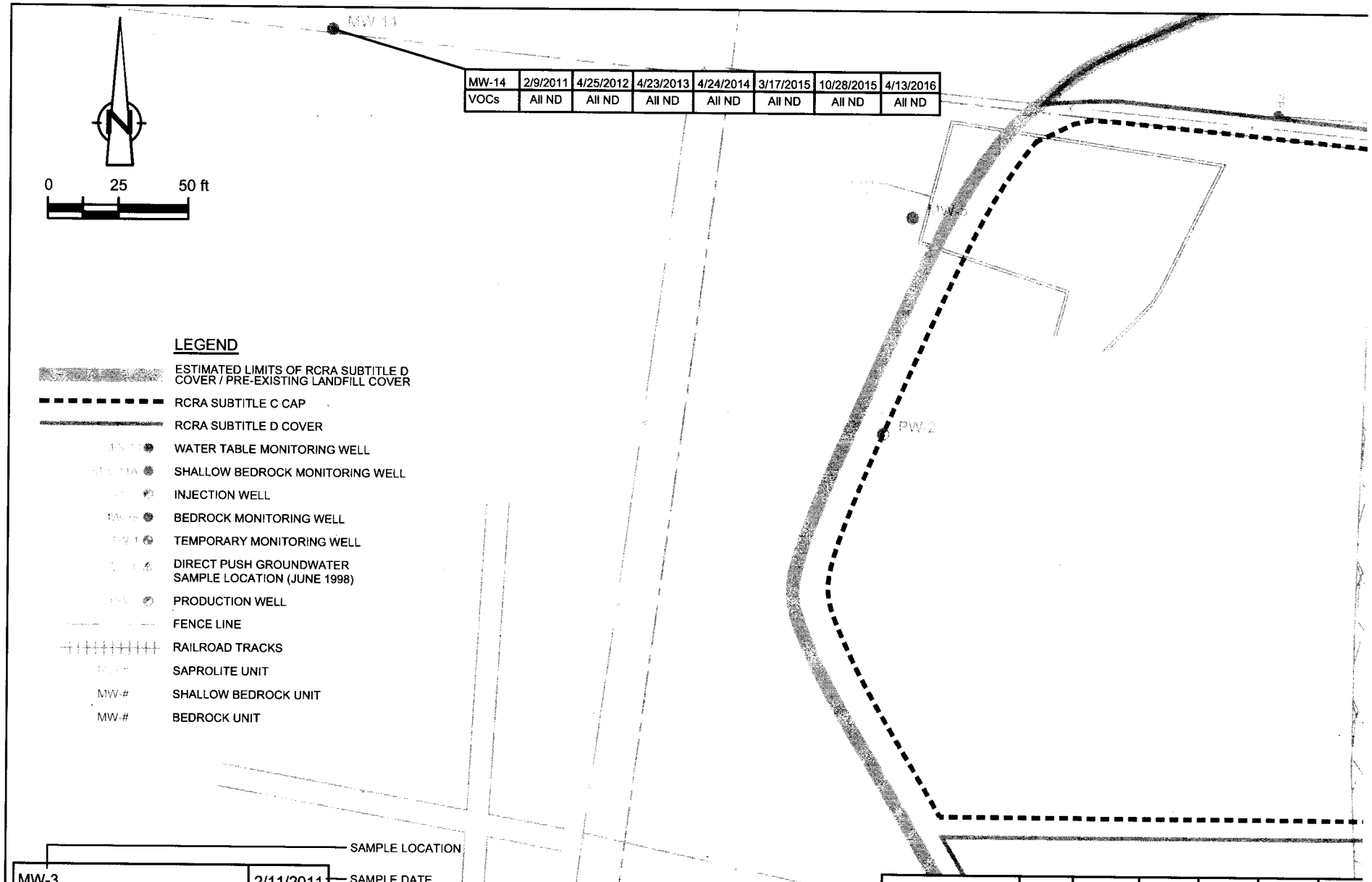
MW-40	2/16/2011
1,4-Dioxane	-
Bromoform	5.0 U
Chloroform (Trichloromethane)	5.0 U
cis-1,2-Dichloroethene	5.0 U
Dibromochloromethane	5.0 U
Methyl tert butyl ether (MTBE)	5.0 U
Tetrachloroethene	71
Trichloroethene	5.0 U

MW-39	2/16/2011	2/16/20
1,4-Dioxane	-	-
Bromoform	60	57
Chloroform (Trichloromethane)	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	9.1	9.0
Tetrachloroethene	330	360
Trichloroethene	3.6 J	3.2 J

LEGEND

ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER

SAMPLE LOCATION



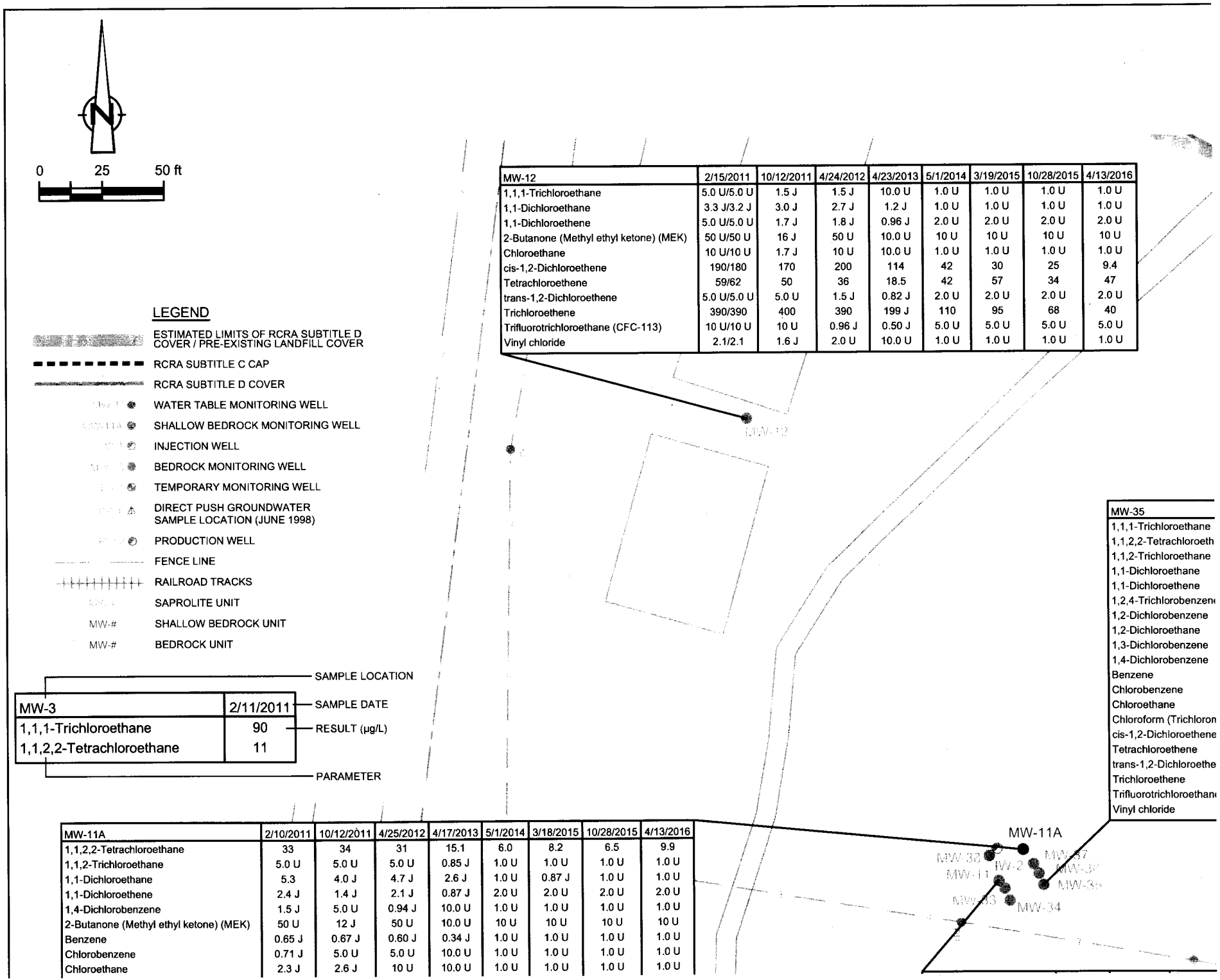
MW-14	2/9/2011	4/25/2012	4/23/2013	4/24/2014	3/17/2015	10/28/2015	4/13/2016
VOCs	All ND	All ND	All ND	All ND	All ND	All ND	All ND

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER

TW-2	2/9/2011	10/13/2011	4/25/2012	4/23/2013	4/24/2014	3/17/2015	10/28/2015	4/13/2016

MW-7A	2/2/2011	10/11/2011	4/24/2012	4/22/2013	4/22/2013	4/23/20
1,1-Dichloroethane	5.0 U	5.0 U	0.83 J	7.3 J	7.0 J	5.7
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	0.78 J	0.75 J	2.0 U
1,2,4-Trimethylbenzene	5.0 U	5.0 U	5.0 U	0.57 J	0.31 J	1.0 U
1,2-Dichloroethane	5.0 U	5.0 U	0.48 J	0.74 J	10.0 U	1.0 U
1,4-Dioxane	-	-	-	-	-	-
Acetone	17 J	11 J	5.8 J	25.0 U	25.0 U	20 U
Benzene	5.0 U	5.0 U	5.0 U	2.1 J	1.8 J	1.4
Chlorobenzene	5.0 U	5.0 U	5.0 U	0.31 J	0.29 J	1.0 U
cis-1,2-Dichloroethene	16	15	30	161	159	120
Methylene chloride	5.0 U	5.0 U	5.0 U	1.4 J	1.5 J	5.0 U
o-Xylene	-	-	-	0.27 J	10.0 U	-
Tetrachloroethene	14	1.8 J	2.1 J	9.8 J	9.4 J	9.5



MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

MW-12	2/15/2011	10/12/2011	4/24/2012	4/23/2013	5/1/2014	3/19/2015	10/28/2015	4/13/2016
1,1,1-Trichloroethane	5.0 U/5.0 U	1.5 J	1.5 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	3.3 J/3.2 J	3.0 J	2.7 J	1.2 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5.0 U/5.0 U	1.7 J	1.8 J	0.96 J	2.0 U	2.0 U	2.0 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	50 U/50 U	16 J	50 U	10.0 U	10 U	10 U	10 U	10 U
Chloroethane	10 U/10 U	1.7 J	10 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	190/180	170	200	114	42	30	25	9.4
Tetrachloroethene	59/62	50	36	18.5	42	57	34	47
trans-1,2-Dichloroethene	5.0 U/5.0 U	5.0 U	1.5 J	0.82 J	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	390/390	400	390	199 J	110	95	68	40
Trifluorotrichloroethane (CFC-113)	10 U/10 U	10 U	0.96 J	0.50 J	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	2.1/2.1	1.6 J	2.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U

MW-35
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroeth
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2,4-Trichlorobenzen
1,2-Dichlorobenzene
1,2-Dichloroethane
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Benzene
Chlorobenzene
Chloroethane
Chloroform (Trichloron
cis-1,2-Dichloroethene
Tetrachloroethene
trans-1,2-Dichloroethe
Trichloroethene
Trifluorotrichloroethan
Vinyl chloride

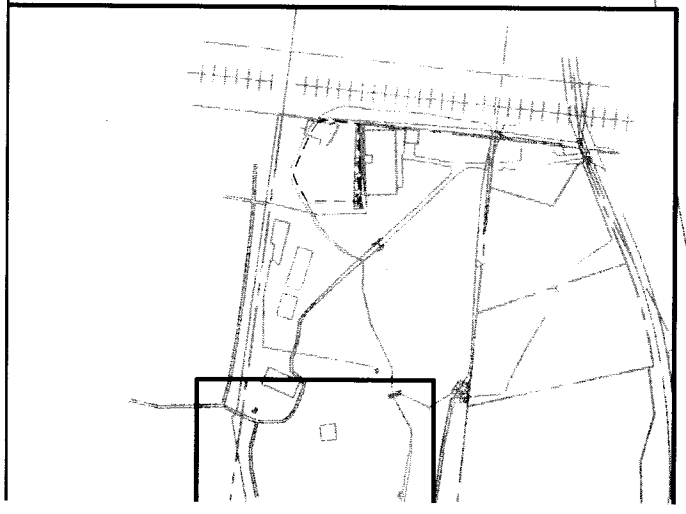
MW-11A	2/10/2011	10/12/2011	4/25/2012	4/17/2013	5/1/2014	3/18/2015	10/28/2015	4/13/2016
1,1,2,2-Tetrachloroethane	33	34	31	15.1	6.0	8.2	6.5	9.9
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	0.85 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5.3	4.0 J	4.7 J	2.6 J	1.0 U	0.87 J	1.0 U	1.0 U
1,1-Dichloroethene	2.4 J	1.4 J	2.1 J	0.87 J	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	1.5 J	5.0 U	0.94 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	50 U	12 J	50 U	10.0 U	10 U	10 U	10 U	10 U
Benzene	0.65 J	0.67 J	0.60 J	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	0.71 J	5.0 U	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	2.3 J	2.6 J	10 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U

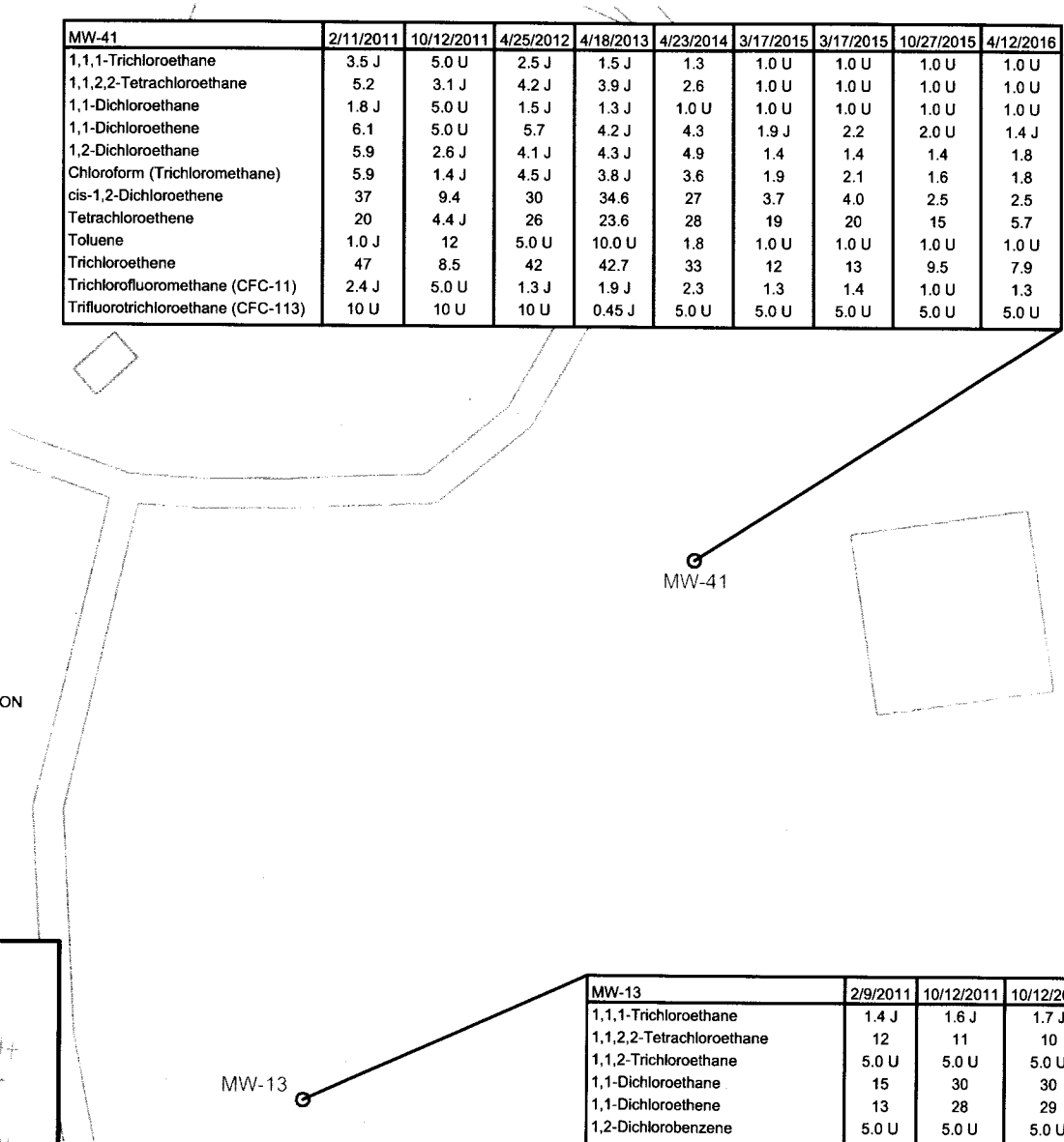
LEGEND

- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
- WATER TABLE MONITORING WELL
- SHALLOW BEDROCK MONITORING WELL
- INJECTION WELL
- BEDROCK MONITORING WELL
- TEMPORARY MONITORING WELL
- DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER





MW-41	2/11/2011	10/12/2011	4/25/2012	4/18/2013	4/23/2014	3/17/2015	3/17/2015	10/27/2015	4/12/2016
1,1,1-Trichloroethane	3.5 J	5.0 U	2.5 J	1.5 J	1.3	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5.2	3.1 J	4.2 J	3.9 J	2.6	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.8 J	5.0 U	1.5 J	1.3 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	6.1	5.0 U	5.7	4.2 J	4.3	1.9 J	2.2	2.0 U	1.4 J
1,2-Dichloroethane	5.9	2.6 J	4.1 J	4.3 J	4.9	1.4	1.4	1.4	1.8
Chloroform (Trichloromethane)	5.9	1.4 J	4.5 J	3.8 J	3.6	1.9	2.1	1.6	1.8
cis-1,2-Dichloroethene	37	9.4	30	34.6	27	3.7	4.0	2.5	2.5
Tetrachloroethene	20	4.4 J	26	23.6	28	19	20	15	5.7
Toluene	1.0 J	12	5.0 U	10.0 U	1.8	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	47	8.5	42	42.7	33	12	13	9.5	7.9
Trichlorofluoromethane (CFC-11)	2.4 J	5.0 U	1.3 J	1.9 J	2.3	1.3	1.4	1.0 U	1.3
Trifluorotrichloroethane (CFC-113)	10 U	10 U	10 U	0.45 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

MW-3
1,1,1-Trich
1,1,2,2-Te
1,1,2-Trich
1,1-Dichlo
1,1-Dichlo
1,2,4-Trich
1,2-Dichlo
1,2-Dichlo
1,3-Dichlo
1,4-Dichlo
1,4-Dioxan
2-Butanon
Benzene
Chlorober
Chloroeth
Chloroform
cis-1,2-Dic
Cyclohexa
Isopropyl l
o-Xylene
Tetrachlor
Toluene
trans-1,2-I
Trichloroe
Vinyl chlor
Xylenes (t

MW-13	2/9/2011	10/12/2011	10/12/2011	4/26/2012	4/18/2013
1,1,1-Trichloroethane	1.4 J	1.6 J	1.7 J	0.70 J	1.1 J
1,1,2,2-Tetrachloroethane	12	11	10	7.1	7.9 J
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	0.61 J
1,1-Dichloroethane	15	30	30	11	16.4
1,1-Dichloroethene	13	28	29	5.3	12.6
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	0.32 J
1,2-Dichloroethane	0.88 J	1.9 J	1.9 J	0.63 J	1.1 J
1,4-Dichlorobenzene	5.0 U	0.99 J	1.0 J	5.0 U	0.54 J
1,4-Dioxane	-	-	-	-	-
Acetone	50 U	50 U	50 U	17 J	25.0 U
Benzene	1.6 J	7.0	6.8	1.1 J	2.1 J
Chlorobenzene	5.0 U	0.55 J	5.0 U	5.0 U	0.28 J
Chloroethane	10 U	10 U	10 U	1.3 J	10.0 U
Chloroform (Trichloromethane)	5.4	7.9	8.1	3.7 J	5.4 J
cis-1,2-Dichloroethene	270	350	320	170	243
Methyl cyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	2.7 J
Methylene chloride	5.0 U	2.2 J	2.2 J	5.0 U	10.0 U
Tetrachloroethene	61	75	76	1.8 J	54.4
Toluene	5.0 U	14	13	5.0 U	10.0 U

LEGEND

- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
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- SHALLOW BEDROCK MONITORING WELL
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- BEDROCK MONITORING WELL
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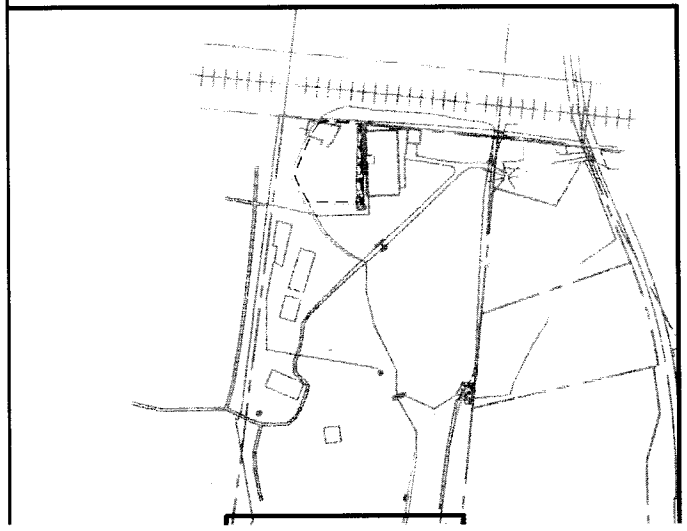
- DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER



MW-42

MW-10A

DP-1

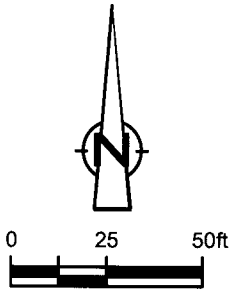
MW-24A

MW-42	2/9/2011	10/12/2011	4/26/2012	4/22/
1,1,1-Trichloroethane	16	11	11	11
1,1,2,2-Tetrachloroethane	57	37	32	32
1,1,2-Trichloroethane	3.4 J	3.3 J	2.9 J	3.5
1,1-Dichloroethane	110	94	46	94
1,1-Dichloroethene	140	110	45	14
1,2-Dichlorobenzene	5.0 U	5.0 U	0.76 J	0.6
1,2-Dichloroethane	7.1	5.9	6.0	6.0
1,4-Dichlorobenzene	5.0 U	0.93 J	1.0 J	1.0
1,4-Dioxane	-	-	-	-
Benzene	34	21	14	14
Carbon tetrachloride	2.0 J	5.0 U	1.3 J	2.0
Chlorobenzene	5.0 U	5.0 U	5.0 U	0.3
Chloroethane	10 U	10 U	1.3 J	10.0
Chloroform (Trichloromethane)	57	39	39	61
cis-1,2-Dichloroethene	1000	750	620	81
Dichlorodifluoromethane (CFC-12)	10 U	0.97 J	10 U	0.9
Methyl cyclohexane	5.0 U	5.0 U	5.0 U	6.6
Methylene chloride	3.6 J	3.2 J	5.0 U	4.0
o-Xylene	-	-	-	1.1
Tetrachloroethene	180	130	160	17
Toluene	5.0 U	5.0 U	0.40 J	0.2
trans-1,2-Dichloroethene	4.3 J	5.0 U	1.4 J	1.8
Trichloroethene	820	700	540	69
Trichlorofluoromethane (CFC-11)	6.8	8.6	3.4 J	5.0
Trifluorotrichloroethane (CFC-113)	47	37	12	37
Vinyl chloride	31	24	14 J	12
Xylenes (total)	5.0 U	5.0 U	5.0 U	1.5

MW-4A	2/9/2011	10/12/2011	4/26/2012	4/17/2013	4/23/2014	3/1
1,1-Dichloroethane	5.0 U	5.0 U	0.55 J	0.72 J	1.6	
1,2,4-Trichlorobenzene	5.0 U	5.0 U	1.6 J	10.0 U	1.0 U	
cis-1,2-Dichloroethene	3.3 J	6.1	5.2	8.8 J	17	
Tetrachloroethene	5.0 U	2.0 J	4.4 J	4.2 J	8.0	
Toluene	9.1	8.4	5.0 U	0.26 J	2.5	
Trichloroethene	2.3 J	4.4 J	1.7 J	3.2 J	5.1	
Trifluorotrichloroethane (CFC-113)	10 U	10 U	10 U	0.30 J	5.0 U	

MW-10A	2/9/2011	4/26/2012	4/26/2012	4/17/2013	5/1/2014	3/18/2015	10/29/2015	10/29/2015	4/14/2016
cis-1,2-Dichloroethene	3.5 J	1.2 J	1.2 J	3.7 J	3.6	2.6	4.0	4.1	2.6
Tetrachloroethene	5.0 U	5.0 U	5.0 U	0.71 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5.4	5.0 U	5.0 U	10.0 U	2.0	7.8	27	33	1.0 U
Trichloroethene	5.0 U	0.66 J	5.0 U	1.5 J	1.0 U	1.0 U	1.6	1.0 U	1.0 U

MW-4	2/9/2011	10/12/2011	4/26/2012	4/17/2
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	10.0
1,1-Dichloroethane	4.9 J	4.0 J	1.7 J	2.3
1,1-Dichloroethene	3.1 J	3.0 J	1.5 J	1.3
Benzene	5.0 U	0.41 J	5.0 U	0.26
Chloroform (Trichloromethane)	5.0 U	5.0 U	5.0 U	10.0
cis-1,2-Dichloroethene	33	30	8.8	14.9
Tetrachloroethene	11	7.5	4.8 J	6.4
Toluene	5.0 U	31	5.0 U	10.0
Trichloroethene	22	19	8.3	11.5
Trifluorotrichloroethane (CFC-113)	10 U	10 U	10 U	0.35
Vinyl chloride	0.96 J	2.1	0.83 J	10.0



LEGEND

- FENCE LINE
- SF — REGULAR SILT FENCE
- GRAVEL ACCESS PATH
- BUILDING STRUCTURE
- CONCRETE PAD
- RIP RAP
- STRAW EROSION CONTROL MAT
- COCONUT EROSION CONTROL MAT
- SVE WELLS
- ① HEADER NUMBER
- ON GRADE PIPING

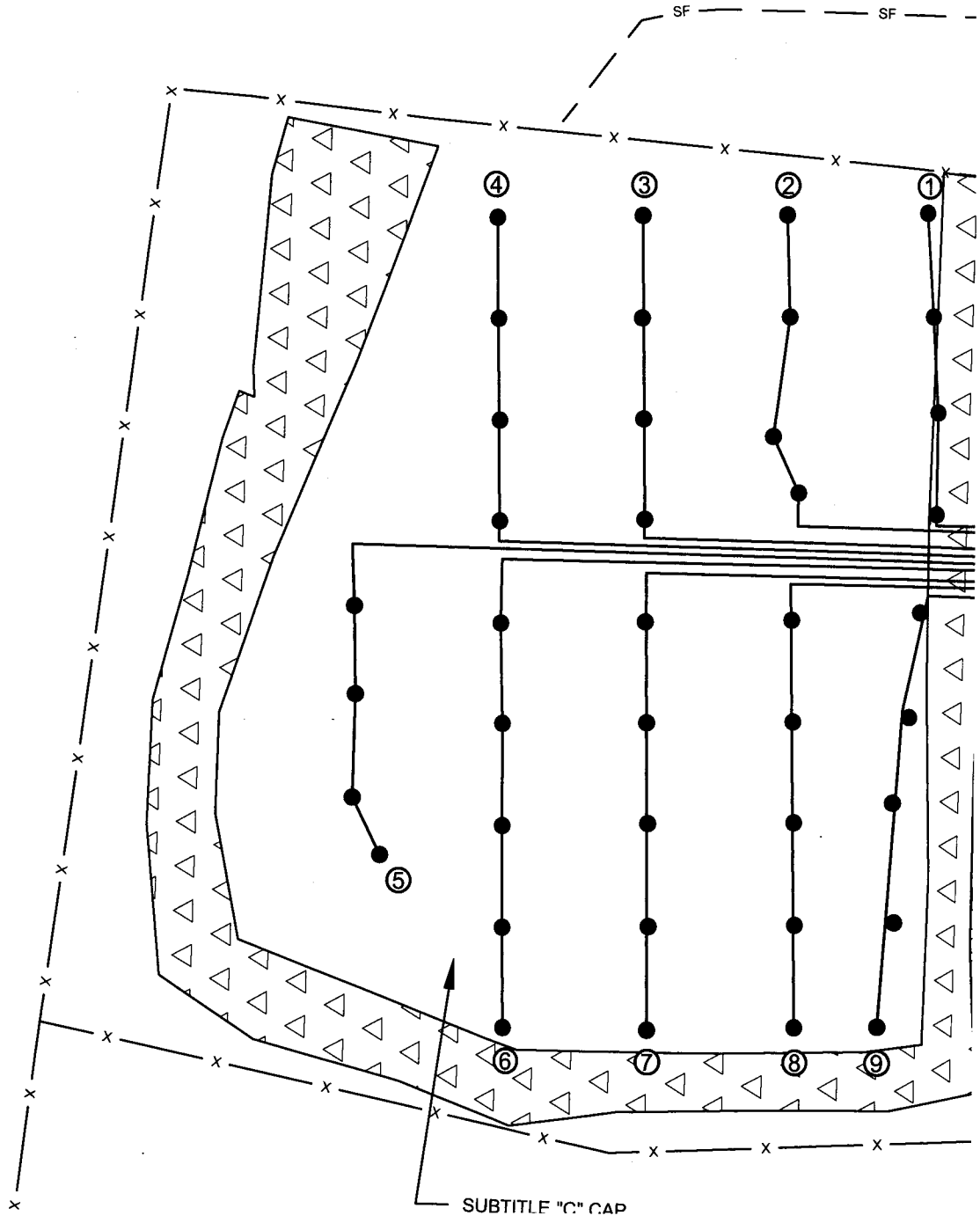
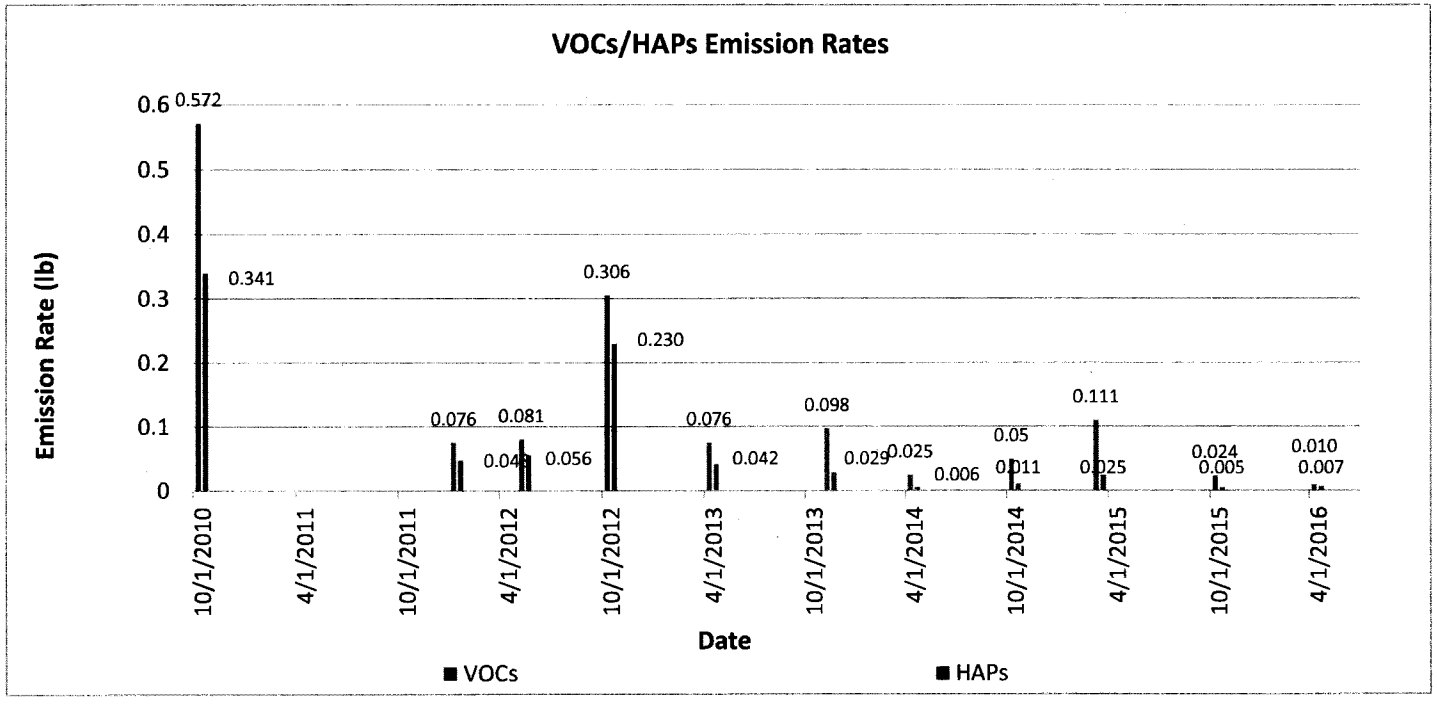


Figure 7



Note:
All samples were collected pre-carbon except the October 2010 sample which was collected post-carbon filter
THC as gas was inadvertently left out of the analysis list during the April 2016 event.

Tables

Table 1

Groundwater Elevations
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Well	*Unit*	*Reference Elevation*	*Depth to Groundwater (feet bTOC)*	*Groundwater Elevation (feet AMSL)*	
			April 11, 2016		
MW-1	Saprolite	832.82	30.61	802.21	
MW-2	Saprolite	806.46	28.20	778.26	
MW-2A	Shallow Bedrock	805.94	25.88	780.06	
MW-3	Saprolite	821.18	38.74	782.44	
MW-4	Saprolite	772.19	14.64	757.55	
MW-4A	Bedrock	769.40	11.54	757.86	
MW-5	Saprolite	845.93	15.78	830.15	
MW-6	Saprolite	769.94	10.50	759.44	
MW-6A	Bedrock	770.15	Damaged		
MW-7	Saprolite	826.01	25.88	800.13	
MW-7A	Shallow Bedrock	826.03	22.36	803.67	
MW-8	Saprolite	812.39	21.90	790.49	
MW-8A	Shallow Bedrock	812.36	21.00	791.36	
MW-8B	Bedrock	812.31	17.79	794.52	
MW-9	Saprolite	806.19	22.79	783.40	
MW-9A	Shallow Bedrock	806.68	22.55	784.13	
MW-9B	Bedrock	805.73	22.96	782.77	
MW-10	Saprolite	768.22	Damaged		
MW-10A	Shallow Bedrock	768.09	8.61	759.48	
MW-11	Saprolite	827.96	33.24	794.72	
MW-11A	Bedrock	827.33	26.62	800.71	
MW-12	Saprolite	832.55	27.66	804.89	
MW-13	Shallow Bedrock	828.91	56.90	772.01	
MW-14 (2)	Saprolite	873.42	39.86	833.56	
MW-15	Saprolite	837.68	35.19	802.49	
MW-16	Saprolite	801.39	27.27	774.12	
MW-16A	Bedrock	800.85	25.62	775.23	
MW-17	Saprolite	768.73	Unable to Locate		
MW-18	Saprolite	827.95	48.62	779.33	
MW-18A	Shallow Bedrock	827.86	48.71	779.15	
MW-19	Saprolite	763.12	4.94	758.18	
MW-20	Saprolite	864.24	62.80	801.44	
MW-21	Saprolite	812.48	Damaged		
MW-22	Saprolite	764.00	7.08	756.92	
MW-23	Saprolite	762.91	9.53	753.38	
MW-23A	Bedrock	763.64	6.15	757.49	
MW-24	Saprolite	772.25	14.82	757.43	
MW-24A	Bedrock	771.38	10.15	761.23	
MW-25	Shallow Bedrock	771.68	8.42	763.26	
MW-26	Saprolite	813.22	27.20	786.02	
MW-27	Saprolite	831.09	29.90	801.19	
MW-28	Saprolite	831.04	30.13	800.91	
MW-29	Saprolite	830.50	29.70	800.80	
MW-30	Saprolite	832.08	31.33	800.75	
MW-31	Saprolite	831.77	31.00	800.77	
MW-32	Saprolite	831.45	30.82	800.63	
MW-33	Saprolite	827.14	34.52	792.62	
MW-34	Saprolite	827.00	36.27	790.73	
MW-35	Saprolite	825.65	34.64	791.01	
MW-36	Saprolite	825.70	34.25	791.45	
MW-37	Saprolite	825.76	34.04	791.72	
MW-38	Saprolite	826.89	32.72	794.17	
MW-39	Saprolite	828.51	32.29	796.22	
MW-40	Saprolite	835.78	37.38	798.40	
MW-41	Shallow Bedrock	849.20	70.57	778.63	
MW-42	Saprolite	805.98	42.18	763.80	
TW-1	Saprolite	857.44	58.73	798.71	
TW-2	Saprolite	870.16	44.28	825.88	
TW-3	Saprolite	863.50	59.16	804.34	
TW-4	Saprolite	865.66	41.52	824.14	
TW-5	Shallow Bedrock	843.04	NM	NM	unmarked well
IW-1	Saprolite	829.27	28.14	801.13	
IW-2	Saprolite	824.44	33.11	791.33	

Notes:
AMSL- Above Mean Sea Level
bTOC- Elevations are reported relative to NGVD
NM - Not Measured

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-27 GW-020311-SAG-105 2/3/2011 Pre-injection	MW-27 GW-051811-DJB-005 5/18/2011 1st Post-injection	MW-27 GW-070611-EAH-001 7/6/2011 2nd Post-injection	MW-27 GW-101111-DJB-101 10/11/2011 3rd Post-injection	MW-27 GW-042412-AWY-002 4/24/2012 4th Post-injection	MW-27 GW-042412-AWY-003 4/24/2012 4th Post-injection Duplicate	MW-27 GW-103012-BCW-110 10/30/2012 5th Post-injection	MW-27 GW-041613-CI 4/16/201: 6th Post-inje
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	0.53 J	5.0 U	5.0 U	0.48 J	0.54 J	10.0 U	10.0 U
1,4-Dioxane	ug/L								
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	50 U	50 U	50 U	50 U	10.0 U	10.0 U
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U
Acetone	ug/L	13 J	50 UJ	50 U	11 J	50 U	50 U	25.0 U	25.0 U
Benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromoform	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	0.70 J	5.0 U	0.69 J	0.73 J	0.67 J	0.40 J
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U
cis-1,2-Dichloroethene	ug/L	8.6	1.0 J	5.0 U	5.0 U	0.65 J	5.0 U	2.1 J	1.3 J
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	6.2	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U
Ethylbenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl acetate	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl tert butyl ether (MTBE)	ug/L	17	5.8 J	6.2	4.1 J	5.8	5.9	4.0 J	3.7 J
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Styrene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Tetrachloroethene	ug/L	**1800**	**630**	**170**	**390**	**610**	**530**	**583**	**537**
Toluene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Trichloroethene	ug/L	**13**	2.4 J	5.0 U	5.0 U	1.9 J	2.2 J	3.7 J	2.9 J

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-27 GW-020311-SAG-105 2/3/2011 Pre-injection	MW-27 GW-051811-DJB-005 5/18/2011 1st Post-injection	MW-27 GW-070611-EAH-001 7/6/2011 2nd Post-injection	MW-27 GW-101111-DJB-101 10/11/2011 3rd Post-injection	MW-27 GW-042412-AWY-002 4/24/2012 4th Post-injection	MW-27 GW-042412-AWY-003 4/24/2012 4th Post-injection Duplicate	MW-27 GW-103012-BCW-110 10/30/2012 5th Post-injection	MW-27 GW-041613-CI 4/16/201: 6th Post-inje
Metals (Totals)									
Aluminum	mg/L	-	**1.72**	**18.3**	**1.07**	**2.83**	**2.20**	**8.51**	**27.7**
Antimony	mg/L	-	0.0053 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.0155 J	0.107	0.0733	0.0731	0.0384	0.037
Barium	mg/L	0.314	0.284	0.612	0.0811	0.0956	0.0826	0.196 J	0.684
Beryllium	mg/L	-	0.0007 J	0.0011 J	0.0100 U	0.0100 U	0.0100 U	0.00063 J	0.0014
Cadmium	mg/L	0.0050 U	0.0003 J	0.0001 J	-	0.0034 J	0.0033 J	0.005 U	0.005 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	0.0050 U	-	-	-	-
Calcium	mg/L	-	31.1	22.0	9.86	3.65	3.44	1.08	1.6
Chromium	mg/L	0.0094 J	**0.0385**	**0.152**	**0.142**	**0.0529**	**0.0512**	0.0055 J	**0.0518**
Cobalt	mg/L	-	0.0018 J	0.0108 J	0.0010 J	0.0017 J	0.0014 J	0.0028 J	0.0102
Copper	mg/L	0.0011 J	0.0100 U	0.0059 J	0.0100 U	0.0100 U	0.0100 U	0.0023 J	0.0038 J
Iron	mg/L	**4.26**	**0.781**	**15.7**	**0.937**	**2.27**	**1.71**	**6.08**	**20.5**
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	**0.114**	0.0428 J
Lead	mg/L	**0.221**	0.0100 U	0.0093 J	0.0100 U	0.0019 J	0.0027 J	0.005 U	0.0218
Magnesium	mg/L	-	13.7	15.4	5.00	2.56	2.36	2.53	7.68
Manganese	mg/L	**0.637**	**0.661**	**0.845**	**0.390**	**0.306**	**0.263**	**0.585**	**2.42**
Manganese (dissolved)	mg/L	**0.515**	**0.490**	**0.320**	**0.127**	0.0172 J	0.0293 J	**0.0245**	**0.0152**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 L
Nickel	mg/L	-	0.0018 J	0.0273	0.0045 J	0.0031 J	0.0024 J	0.0105 U	0.0411
Potassium	mg/L	-	8.83	30.3 J	11.9	3.73	3.37	3.31 J	7.54
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U
Silver	mg/L	-	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.005 U
Sodium	mg/L	-	**395**	**763**	**1130**	**616**	**578**	**201**	**121**
Thallium	mg/L	-	0.0200 U	0.0200 U	0.0200 UJ	0.0200 U	0.0200 U	0.01 U	0.01 U
Vanadium	mg/L	-	0.0016 J	0.0372	0.0495	0.482	0.486	0.547	0.434
Zinc	mg/L	-	0.0186 J	0.0738	0.0094 J	0.0200 U	0.0200 U	0.0211	0.0551
Wet Chemistry									
Ammonia	mg/L	-	0.194 J	0.200 U	0.086 J	0.200 U	0.200 U	0.10 U	0.10 U
Nitrate (as N)	mg/L	-	5.41 J	5.58	5.87	4.52 J	4.66 J	4.6	4.3 J
Orthophosphate	mg/L	-	0.0371 J	9.10 J	68.0	86.5	86.5	54	35.0
Sulfate	mg/L	**7.0**	**377**	**1540**	**2560**	**924**	**898**	**130**	**46**
Field Parameters									
pH	S.U	4.99	5.02	4.61	6.87	6.63	6.63	7.0	8.59
Dissolved Oxygen (DO)	mg/L	1.38	3.97	3.17	5.72	3.86	3.86	2.78	1.94
Oxidation-reduction potential (ORP)	mv	377	502	385	547	436	436	268	240

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27	MW-27	MW-28
	Sample Name:	GW-013926-042414-DWH-102	GW-013926-101414-SAG-001	GW-013926-031715-SAG-001	GW-013926-102715-AWY-001	GW-013926-041216-SAG-101	GW-020311-SAC
	Sample Date:	4/24/2014	10/14/2014	3/17/2015	10/27/2015	4/12/2016	2/3/2011
	Performance Event:	8th Post-injection	9th Post-injection	10th Post-injection	11th Post-injection	12th Post-injection	Pre-injectio
Parameters	Units	Duplicate					
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	-	--	--	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	5.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	-	--	--	-	-
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dioxane	ug/L				150 U	150 U	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U	50 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
cis-1,2-Dichloroethene	ug/L	1.4	1.0 U	1.0 U	1.7	1.0 U	10
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	2.3	1.5	1.7	1.4	1.3	13
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Tetrachloroethene	ug/L	**520**	**580**	**340**	**540**	**600**	**1800**
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Trichloroethene	ug/L	**3.3**	**3.9**	**3.4**	**3.9**	**2.6**	**13**

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-27	MW-27	MW-27	MW-27	MW-27	MW-28
Location ID:		*MW-27*	*MW-27*	*MW-27*	*MW-27*	*MW-27*	*MW-28*
Sample Name:		*GW-013926-042414-DWH-102*	*GW-013926-101414-SAG-001*	*GW-013926-031715-SAG-001*	*GW-013926-102715-AWY-001*	*GW-013926-041216-SAG-101*	*GW-020311-SAC*
Sample Date:		*4/24/2014*	*10/14/2014*	*3/17/2015*	*10/27/2015*	*4/12/2016*	*2/3/2011*
Performance Event:		*8th Post-injection*	*9th Post-injection*	*10th Post-injection*	*11th Post-injection*	*12th Post-injection*	*Pre-injectio*
		Duplicate					
Metals (Totals)							
Aluminum	mg/L	2 J	**21.9**	**15.1**	**13.4**	**11.7**	-
Antimony	mg/L	0.005 U	0.005 U	0.005 U	0.000146 J	0.000327 J	-
Arsenic	mg/L	0.00616	0.0101	0.00682	0.00386 J	0.00596	0.0500 U
Barium	mg/L	0.0774	0.632	0.422	0.5	0.388	0.240
Beryllium	mg/L	0.001 U	0.0015	0.001 U	0.000969 J	0.000763 J	-
Cadmium	mg/L	0.0007 U	0.000635 J	0.000249 J	0.0007 U	0.000535 J	0.0050 U
Cadmium (dissolved)	mg/L	-	-		--	-	0.0050 U
Calcium	mg/L	0.386	2.73	2.29	1.8	1.92	-
Chromium	mg/L	**0.00699**	**0.0367**	**0.0266**	**0.0235**	**0.02**	0.0057 J
Cobalt	mg/L	0.005 U	0.00932	0.00615	0.00586	0.00483 J	-
Copper	mg/L	0.002 U	0.00594	0.00359	0.00396	0.00221	0.0100 U
Iron	mg/L	1.67 J	**17.6**	**12.5**	**11.7**	**8.85**	**2.37**
Iron (dissolved)	mg/L	0.1 U	**0.12**	0.1 U	0.0193 J	0.1 U	0.100 U
Lead	mg/L	0.0014	0.0108	0.00658	0.00951	0.00804	0.0013 J
Magnesium	mg/L	0.755 J	8.01	5.77	5.26	4.15	-
Manganese	mg/L	0.128 J	**1.75**	**1.11**	**0.859**	**0.754**	**0.211**
Manganese (dissolved)	mg/L	**0.0115**	**0.025**	**0.0118**	**0.0226**	0.00204 J	**0.180**
Mercury	mg/L	0.00020 U	0.00020 U	0.00020 U	0.00008 J	0.00020 U	-
Nickel	mg/L	0.005 U	0.0286	0.0193	0.0179	0.0143	-
Potassium	mg/L	0.957	7.91	5.59	5.71	3.88	-
Selenium	mg/L	0.005 U	0.00377 J	0.00361 J	0.000764 J	0.000313 J	0.0200 U
Silver	mg/L	0.001 U	0.000031 J	0.001 U	0.000055 J	0.000033 J	-
Sodium	mg/L	**67.1**	**49.6**	**50**	**48.6**	**42.6**	-
Thallium	mg/L	0.001 U	0.001 U	0.000226 J	0.000321 J	0.000234 J	-
Vanadium	mg/L	0.0729	0.104	0.0751	0.0613	0.0776	-
Zinc	mg/L	0.01 U	0.0464	0.0327	0.036	0.0527	-
Wet Chemistry							
Ammonia	mg/L	0.020 U	0.020 U	0.166 J	0.020 UJ	0.020 U	-
Nitrate (as N)	mg/L	6.7	4.8	6.2	6.8	5.8	-
Orthophosphate	mg/L	9.92	7.22	5.54	5.00 J	7.63	-
Sulfate	mg/L	**14**	**9.7**	**14**	**11**	**10**	**4.2**
Field Parameters							
pH	S.U	-	6.15	5.55	5.93	5.36	5.21
Dissolved Oxygen (DO)	mg/L	-	4.51	2.01	2.69	0.0	1.54
Oxidation-reduction potential (ORP)	mv	-	196	179	326	335	395

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitn

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-28 GW-103012-BCW-108 10/30/2012 5th Post-injection	MW-28 GW-041613-CRM-001 4/16/2013 6th Post-injection	MW-28 GW-013926-102313-SAG-005 10/23/2013 7th Post-injection	MW-28 GW-013926-042414-DWH-103 4/24/2014 8th Post-injection	MW-28 GW-013926-101414-SAG-002 10/14/2014 9th Post-injection	MW-28 GW-013926-101414-SAG-003 10/14/2014 9th Post-injection Duplicate	G
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	-	-	-	1.0 U	-	-	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.021 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	-	-	-	1.0 U	-	-	
1,3-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L							
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	25.0 U	25.0 U	14 J	20 U	20 U	20 U	
Benzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	0.65 J	0.64 J	0.60 J	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	0.97 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	1.3 J	1.4 J	1.4	1.4	1.0 U	1.0 U	
cis-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	3.7 J	3.9 J	3.7	2.7	1.5	1.4	
Methylene chloride	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**451**	**820**	**890**	**650**	**570**	**590**	
Toluene	ug/L	0.27 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	2.6 J	3.6 J	**2.8**	**3.2**	**3.5**	**3.6**	

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-28 GW-103012-BCW-108 10/30/2012 5th Post-injection	MW-28 GW-041613-CRM-001 4/16/2013 6th Post-injection	MW-28 GW-013926-102313-SAG-005 10/23/2013 7th Post-injection	MW-28 GW-013926-042414-DWH-103 4/24/2014 8th Post-injection	MW-28 GW-013926-101414-SAG-002 10/14/2014 9th Post-injection	MW-28 GW-013926-101414-SAG-003 10/14/2014 9th Post-injection Duplicate	G
Metals (Totals)								
Aluminum	mg/L	**3.24**	**1.11**	**11.7**	**3.44**	**23.1**	**19.3**	
Antimony	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
Arsenic	mg/L	0.0034 J	0.0092 J	0.0359	0.0506	0.0293	0.0315	
Barium	mg/L	0.08 J	0.0542 J	0.391	0.0992	0.663	0.511	
Beryllium	mg/L	0.001 U	0.001 U	0.00081 J	0.001 U	0.00139	0.00112	
Cadmium	mg/L	0.005 U	0.005 U	0.000176 J	0.0007 U	0.000311 J	0.000232 J	
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	
Calcium	mg/L	5.47	0.717	2.6	0.439	2.12	1.83	
Chromium	mg/L	**0.105**	**0.0454**	**0.0457**	**0.0167**	**0.0428**	**0.0366**	
Cobalt	mg/L	0.0033 J	0.005 U	0.00696	0.005 U	0.00993	0.00864	
Copper	mg/L	0.025 U	0.025 U	0.0041	0.002 U	0.0079	0.00691	
Iron	mg/L	**2.47**	**1.06**	**11.6**	**3.08**	**19.9**	**16.6**	
Iron (dissolved)	mg/L	0.0192 J	0.05 U	0.1 U	0.1 U	0.464	0.404	
Lead	mg/L	0.005 U	0.0042 J	0.00804	0.00179	0.0108	0.0088	
Magnesium	mg/L	2.87	0.692	5.21	1.28	8.63	7.08	
Manganese	mg/L	**0.532**	**0.0906**	**0.346**	**0.103**	**0.563**	**0.48**	
Manganese (dissolved)	mg/L	**0.296**	**0.0527**	**0.0337**	**0.0117**	**0.0589**	**0.056**	
Mercury	mg/L	0.0002 U	0.0002 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	
Nickel	mg/L	0.005 U	0.0059	0.0172	0.005 U	0.0266	0.0217	
Potassium	mg/L	6.98	5 U	5.3	1.82	8.71	7.3	
Selenium	mg/L	0.01 U	0.01 U	0.005 U	0.005 U	0.00341 J	0.00291 J	
Silver	mg/L	0.005 U	0.005 U	0.001 U	0.001 U	0.0000408 J	0.0000322 J	
Sodium	mg/L	**283**	**103**	**64.8**	**72.6**	**60.4**	**66.9**	
Thallium	mg/L	0.01 U	0.01 U	0.000254 J	0.001 U	0.001 U	0.001 U	
Vanadium	mg/L	0.0068	0.0047 J	0.032	0.14	0.231	0.253	
Zinc	mg/L	0.0122	0.01 U	0.0327	0.01 U	0.0457	0.0375	
Wet Chemistry								
Ammonia	mg/L	0.10 U	0.10 U	0.020 U	0.020 U	0.020 U	0.020 U	
Nitrate (as N)	mg/L	5.6	4.6 J	4.5	5.7	4.9	5.1	
Orthophosphate	mg/L	0.46	3.04	16.3	33.2	22.8	25.0	
Sulfate	mg/L	**500**	**180**	**59**	**30**	**14**	**15**	
Field Parameters								
pH	S.U	5.32	7.04	5.56	5.69	5.99	-	
Dissolved Oxygen (DO)	mg/L	4.92	2.69	3.86	2.01	3.54	-	
Oxidation-reduction potential (ORP)	mv	379	272	237	199	200	-	

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitn

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW
Location ID:		MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW
Sample Name:		GW-020311-EAH-008	GW-051711-DJB-003	GW-070611-EAH-003	GW-101111-SAG-001	GW-042412-BCW-100	GW-103012-BCW-109	GW-041613-CRM-003	GW-013926-1(
Sample Date:		2/3/2011	5/17/2011	7/6/2011	10/11/2011	4/24/2012	10/30/2012	4/16/2013	10/23
Performance Event:		Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.(
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	0.020 U	0.019 U	0.0
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
1,4-Dioxane	ug/L								
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 UJ	50 UJ	50 U	10.0 U	10.0 U	1(
2-Hexanone	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1(
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1(
Acetone	ug/L	50 U	50 U	25 J	13 J	5.9 J	25.0 U	25.0 U	25
Benzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
Bromodichloromethane	ug/L	5.0 U	5.0 U	4.0 J	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
Bromoform	ug/L	22	9.6	10 J	11 J	4.5 J	1.7 J	10.0 U	1.(
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
Carbon disulfide	ug/L	5.0 U	4.8 J	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	5.(
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.(
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
Chloroethane	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1.(
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	7.5 J	5.0 UJ	0.45 J	0.76 J	0.63 J	0.:
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	5.8 J	10 UJ	10 U	10.0 U	10.0 U	1.(
cis-1,2-Dichloroethene	ug/L	8.2	5.0 U	5.0 UJ	5.0 UJ	0.64 J	2.7 J	3.3 J	1
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.(
Dibromochloromethane	ug/L	5.0 U	5.0 U	7.1 J	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1.(
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.(
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.(
Methyl tert butyl ether (MTBE)	ug/L	14	6.7	5.0 UJ	0.90 J	2.5 J	2.9 J	3.3 J	2
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	5.(
Styrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.(
Tetrachloroethene	ug/L	**2000**	**2000**	13 J	120 J	**200**	**453**	**874**	**5**
Toluene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	0.31 J	10.0 U	1.(
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.(
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.(
Trichloroethene	ug/L	**13**	2.2 J	5.0 UJ	5.0 UJ	1.2 J	4.6 J	6.2 J	**3**

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW
Location ID:		MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW
Sample Name:		GW-020311-EAH-008	GW-051711-DJB-003	GW-070611-EAH-003	GW-101111-SAG-001	GW-042412-BCW-100	GW-103012-BCW-109	GW-041613-CRM-003	GW-013926-1
Sample Date:		2/3/2011	5/17/2011	7/6/2011	10/11/2011	4/24/2012	10/30/2012	4/16/2013	10/23
Performance Event:		Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post
Metals (Totals)									
Aluminum	mg/L	-	**7.99**	**2.74**	**1.46**	**0.661**	**1.3**	**1.29**	5
Antimony	mg/L	-	0.0024 J	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.0
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0026 J	0.01 U	0.01 U	0.00
Barium	mg/L	0.294	0.533	0.576	0.0462	0.0385	0.0609 J	0.066 J	0.
Beryllium	mg/L	-	0.0012 J	0.0016 J	0.0013 J	0.0100 U	0.001 U	0.001 U	0.00
Cadmium	mg/L	0.0050 U	0.0050 U	0.0024 J	-	0.0050 U	0.005 U	0.005 U	0.00
Cadmium (dissolved)	mg/L	0.0050 U	-	-	0.0017 J	-	-	-	
Calcium	mg/L	-	90.1	517	415	65.8	14.3	3.72	4.
Chromium	mg/L	**0.0427**	**0.0332**	**0.0638**	**0.216**	**0.143**	**0.106**	**0.078**	**0.0**
Cobalt	mg/L	-	0.0049 J	0.0012 J	0.0033 J	0.0012 J	0.0026 J	0.005 U	0.00
Copper	mg/L	0.0071 J	0.0088 J	0.0041 J	0.0031 J	0.0100 U	0.025 U	0.025 U	0.0
Iron	mg/L	**11.4**	**13.1**	**2.19**	**0.371**	**0.817**	**1.8**	**2.05**	**8.**
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.02 J	0.05 U	0.00
Lead	mg/L	0.0043 J	0.0053 J	0.0012 J	0.0100 U	0.0023 J	0.005 U	0.005 U	0.0
Magnesium	mg/L	-	35.3	161	121	22.6	4.4	1.53	3.
Manganese	mg/L	**0.175**	**0.143**	**0.0375**	**0.0756**	**0.0299**	**0.0709**	**0.0297**	**0.**
Manganese (dissolved)	mg/L	**0.0368**	0.0150 U	0.0009 J	**0.0545**	0.0184 J	**0.0223**	**0.0068**	**0.0**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00
Nickel	mg/L	-	0.0083 J	0.0152 J	0.0086 J	0.0022 J	0.0079 U	0.0095	0.0
Potassium	mg/L	-	8.48	26.5 J	19.0	4.90	3.53 J	5 U	3.
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.0
Silver	mg/L	-	0.0100 U	0.0017 J	0.0100 U	0.0100 U	0.005 U	0.005 U	0.00
Sodium	mg/L	-	**83.9**	**282**	**320**	**146**	**91.3**	**57.1**	**3:**
Thallium	mg/L	-	0.0200 U	0.0200 U	0.0200 UJ	0.0200 U	0.01 U	0.01 U	0.00
Vanadium	mg/L	-	0.0324	0.0049 J	0.0012 J	0.0026 J	0.0066	0.0067	0.0
Zinc	mg/L	-	0.0408	0.0831	0.0649	0.0203	0.0115	0.0052 J	0.0
Wet Chemistry									
Ammonia	mg/L	-	0.200 U	0.200 U	0.118 J	0.200 U	0.10 U	0.10 U	0.0
Nitrate (as N)	mg/L	-	2.46	1.13	3.17	3.32	5.6	4.2 J	3
Orthophosphate	mg/L	-	0.0771 J	0.0549 J	0.0931	0.0871	0.40	0.400	0.
Sulfate	mg/L	**160**	**84.1**	**250**	**1230**	**505**	**210**	**96**	4
Field Parameters									
pH	S.U	4.98	5.9	3.44	3.91	5.6	5.51	7.03	5.
Dissolved Oxygen (DO)	mg/L	6.31	4.86	1.74	5.45	8.03	3.19	1.93	4.
Oxidation-reduction potential (ORP)	mv	363	478	597	491	315	342	239	2

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitn

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-32	MW-32	MW-32	MW-32	MW-39	MW-39	GW-0
Location ID:		MW-32	MW-32	MW-32	MW-32	MW-39	MW-39	GW-0
Sample Name:		GW-013926-031715-SAG-004	GW-013926-102715-AWY-004	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-021611-DJB-216	GW-021611-DJB-217	
Sample Date:		3/17/2015	10/27/2015	4/12/2016	4/12/2016	2/16/2011	2/16/2011	
Performance Event:		10th Post-injection	11th Post-injection	12th Post-injection	12th Post-injection	Pre-injection	Pre-injection	1st
		Duplicate			Duplicate		Duplicate	
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,2,4-Trimethylbenzene	ug/L	--	--	-	-	-	-	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	5.0 U	5.0 U	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,3,5-Trimethylbenzene	ug/L	--	--	-	-	-	-	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
1,4-Dioxane	ug/L			150 U	150 U			
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	50 U	50 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	20 U	20 U	20 U	20 U	50 U	50 U	
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	**60**	**57**	
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	
cis-1,2-Dichloroethene	ug/L	3.4	2.9	1.0 U	1.4	5.0 U	5.0 U	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	
Methyl tert butyl ether (MTBE)	ug/L	1.6	1.4	1.2	0.99 J	9.1	9.0	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
Tetrachloroethene	ug/L	**1000**	**870**	950	960	**330**	**360**	
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	
Trichloroethene	ug/L	**6.8**	**5.7**	4.6	4.4	3.6 J	3.2 J	

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-32	MW-32	MW-32	MW-32	MW-39	MW-39	GW-0
Location ID:		MW-32	MW-32	MW-32	MW-32	MW-39	MW-39	GW-0
Sample Name:		GW-013926-031715-SAG-004	GW-013926-102715-AWY-004	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-021611-DJB-216	GW-021611-DJB-217	
Sample Date:		3/17/2015	10/27/2015	4/12/2016	4/12/2016	2/16/2011	2/16/2011	
Performance Event:		10th Post-injection	11th Post-injection	12th Post-injection	12th Post-injection	Pre-injection	Pre-injection	1st
		Duplicate			Duplicate		Duplicate	
Metals (Totals)								
Aluminum	mg/L	**9.7**	5.9	1.2	1.32	-	-	
Antimony	mg/L	0.005 U	0.005 U	0.00017 J	0.000154 J	-	-	
Arsenic	mg/L	0.00307 J	0.000852 J	0.000532 J	0.000532 J	0.0500 U	0.0500 U	
Barium	mg/L	0.264	0.26	0.0883	0.0947	0.193	0.190	
Beryllium	mg/L	0.001 U	0.000791 J	0.000197 J	0.000221 J	-	-	
Cadmium	mg/L	0.000158 J	0.000134 J	0.0007 U	0.0007 U	0.0050 U	0.0050 U	
Cadmium (dissolved)	mg/L		--	-	-	0.0001 J	0.0050 U	
Calcium	mg/L	4.72	3.95	2.83	2.58	-	-	
Chromium	mg/L	**0.035**	**0.0208**	0.00957	0.0107	0.0008 J	0.0009 J	
Cobalt	mg/L	0.00503	0.00354 J	0.000848 J	0.000921 J	-	-	
Copper	mg/L	0.00916	0.0071	0.00196 J	0.00148 J	0.0010 J	0.0488	
Iron	mg/L	**13.1**	**8.33**	1.77	1.95	-	-	
Iron (dissolved)	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	-	-	
Lead	mg/L	**0.00546**	**0.00596**	0.0013	0.00136	0.0100 U	0.0100 U	
Magnesium	mg/L	2.82	2.4	1.12	1.19	-	-	
Manganese	mg/L	**0.134**	**0.0963**	0.0178	0.0202	-	-	
Manganese (dissolved)	mg/L	**0.0156**	**0.00686**	0.00268 J	0.00421 J	-	-	
Mercury	mg/L	0.00020 U	0.00005 J	0.00020 U	0.00008 J	-	-	
Nickel	mg/L	0.00843	0.00546	0.00249 J	0.00262 J	-	-	
Potassium	mg/L	3.23	2.94	1.48	1.56	-	-	
Selenium	mg/L	0.00297 J	0.000438 J	0.000638 J	0.000423 J	0.0200 U	0.0200 U	
Silver	mg/L	0.000383 J	0.000188 J	0.000051 J	0.000042 J	-	-	
Sodium	mg/L	**36.2**	**31**	27.5	29.1	-	-	
Thallium	mg/L	0.00012 J	0.000099 J	0.001 U	0.001 U	-	-	
Vanadium	mg/L	0.0356	0.0222	0.00668	0.0075	-	-	
Zinc	mg/L	0.0192	0.0207	0.0272 J	0.0117 J	-	-	
Wet Chemistry								
Ammonia	mg/L	0.164 J	0.020 UJ	0.020 U	0.020 U	-	-	
Nitrate (as N)	mg/L	4.6	5.3	5.4	5.4	-	-	
Orthophosphate	mg/L	0.896	0.885	0.692	0.760	-	-	
Sulfate	mg/L	**29**	**23**	9.2	10	**1.2**	**1.1**	
Field Parameters								
pH	S.U	-	5.69	-	5.71	4.24	4.24	
Dissolved Oxygen (DO)	mg/L	-	4.47	-	4.50	5.23	5.23	
Oxidation-reduction potential (ORP)	mv	-	334	-	195	328	328	

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitn

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	Gl
Location ID:		MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	
Sample Name:		GW-041613-CRM-004	GW-041613-CRM-005	GW-013926-102313-SAG-006	GW-013926-042514-DWH-105	GW-013926-101414-SAG-005	GW-013926-031715-SAG-005	
Sample Date:		4/16/2013	4/16/2013	10/24/2013	4/25/2014	10/14/2014	3/17/2015	
Performance Event:		6th Post-injection	6th Post-injection	7th Post-injection	8th Post-injection	9th Post-injection	10th Post-injection	
			Duplicate					
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	-	-	-	1.0 U	-	--	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	0.021 U	0.021 U	
1,2-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	-	-	-	1.0 U	-	--	
1,3-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L							
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	25.0 U	25.0 U	12 J	20 U	20 U	20 U	
Benzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	**132**	**140**	**73**	**6.1**	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	0.50 J	0.45 J	0.73 J	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	10.0 U	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	0.48 J	0.45 J	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	1.4 J	1.4 J	0.52 J	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**168**	**136**	**46**	**160**	**46**	**24**	
Toluene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	0.54 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-39 GW-041613-CRM-004 4/16/2013 6th Post-injection	MW-39 GW-041613-CRM-005 4/16/2013 6th Post-injection Duplicate	MW-39 GW-013926-102313-SAG-006 10/24/2013 7th Post-injection	MW-39 GW-013926-042514-DWH-105 4/25/2014 8th Post-injection	MW-39 GW-013926-101414-SAG-005 10/14/2014 9th Post-injection	MW-39 GW-013926-031715-SAG-005 3/17/2015 10th Post-injection	G
Metals (Totals)								
Aluminum	mg/L	**1.52**	**1.16**	**6.08**	**0.228**	**1.85**	**3.06**	
Antimony	mg/L	0.005 U	0.005 U	0.000392 J	0.005 U	0.005 U	0.005 U	
Arsenic	mg/L	0.01 U	0.01 U	0.000373 J	0.005 U	0.005 U	0.000314 J	
Barium	mg/L	0.215	0.216	0.256	0.0606	0.196	0.287	
Beryllium	mg/L	0.001 U	0.001 U	0.00116	0.001 U	0.000479 J	0.000517 J	
Cadmium	mg/L	0.005 U	0.005 U	0.000404 J	0.0007 U	0.00141	0.000333 J	
Cadmium (dissolved)	mg/L	-	-	-	-	-		
Calcium	mg/L	**1.73**	**2**	**2.27**	**1.42**	**1.23**	1.72	
Chromium	mg/L	0.007 J	0.0064 J	**0.0116**	**0.00745**	**0.00728**	**0.00681**	
Cobalt	mg/L	0.004 J	0.0038 J	0.0083	0.005 U	0.00324 J	0.0063	
Copper	mg/L	0.025 U	0.025 U	0.00319	0.002 U	0.00308	0.00272	
Iron	mg/L	**1.26**	**0.927**	**6.79**	**0.117**	**1.96**	**2.82**	
Iron (dissolved)	mg/L	0.05 U	0.018 J	0.0219 J	0.1 U	0.1 U	0.1 U	
Lead	mg/L	0.0047 J	0.0048 J	0.0079	0.001 U	0.00439	0.00649	
Magnesium	mg/L	**4.74**	**4.79**	**6.93**	**2.42**	**2.65**	4.24	
Manganese	mg/L	**0.026**	**0.0227**	**0.102**	**0.00578**	**0.0521**	**0.0823**	
Manganese (dissolved)	mg/L	**0.0113**	**0.012**	**0.0133**	0.005 U	**0.0264**	**0.0479**	
Mercury	mg/L	0.0002 U	0.0002 U	0.00005 J	0.00020 U	0.00020 U	0.00020 U	
Nickel	mg/L	0.005 U	0.005 U	0.00321 J	0.005 U	0.005 U	0.002 J	
Potassium	mg/L	4.79 J	4.81 J	6.75	3.2	3.97	5.03	
Selenium	mg/L	0.01 U	0.01 U	0.00117 J	0.005 U	0.000708 J	0.000639 J	
Silver	mg/L	0.005 U	0.005 U	0.001 U	0.001 U	0.0000351 J	0.0000452 J	
Sodium	mg/L	**42.3**	**42.9**	**43.3**	**28.4**	**14.3**	**12.4**	
Thallium	mg/L	0.01 U	0.01 U	0.000328 J	0.001 U	0.001 U	0.000172 J	
Vanadium	mg/L	0.005 U	0.005 U	0.0134	0.005 U	0.00392 J	0.00549	
Zinc	mg/L	0.0136	0.0176	0.0345	0.01 U	0.0172	0.0201	
Wet Chemistry								
Ammonia	mg/L	0.10 U	0.10 U	0.032	0.020 U	0.020 U	0.020 U	
Nitrate (as N)	mg/L	3.9 J	3.9 J	3.2	3.4	2.7	4.9	
Orthophosphate	mg/L	0.0627	0.0604	0.0515	0.0722	0.0462	0.0380	
Sulfate	mg/L	**55**	**60**	**66**	**57**	**26**	**13**	
Field Parameters								
pH	S.U	6.21	6.21	4.71	4.47	4.93	4.72	
Dissolved Oxygen (DO)	mg/L	4.86	4.86	7.97	6.42	5.33	3.75	
Oxidation-reduction potential (ORP)	mv	384	384	309	183	268	212	

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitn

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40
Location ID:		MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40
Sample Name:		GW-021611-DJB-218	GW-051711-DJB-001	GW-070611-DJB-101	GW-070611-DJB-102	GW-101111-SAG-004	GW-042412-BCW-102	GW-102912-BCW-105	GW-041613-EAH
Sample Date:		2/16/2011	5/17/2011	7/6/2011	7/6/2011	10/11/2011	4/24/2012	10/29/2012	4/16/2013
Performance Event:		Pre-injection	1st Post-injection	2nd Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-inject
					Duplicate				
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,4-Dioxane	ug/L								
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	10.0 U	10.0 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
Acetone	ug/L	50 U	50 U	50 U	50 U	50 U	4.0 J	25.0 U	25.0 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.31 J
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.2 J	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	3.2 J	5.0 U	3.1 J	5.0 U	2.3 J	10.0 U	2.0 J
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Tetrachloroethene	ug/L	**71**	**54**	**77**	**79**	**64**	**42**	**29.3**	**47.1**
Toluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	1.5 J	1.7 J	5.0 U	0.98 J	10.0 U	0.73 J

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-40 GW-021611-DJB-218 2/16/2011 Pre-injection	MW-40 GW-051711-DJB-001 5/17/2011 1st Post-injection	MW-40 GW-070611-DJB-101 7/6/2011 2nd Post-injection	MW-40 GW-070611-DJB-102 7/6/2011 2nd Post-injection Duplicate	MW-40 GW-101111-SAG-004 10/11/2011 3rd Post-injection	MW-40 GW-042412-BCW-102 4/24/2012 4th Post-injection	MW-40 GW-102912-BCW-105 10/29/2012 5th Post-injection	MW-40 GW-041613-EAH 4/16/2013 6th Post-inject
Metals (Totals)									
Aluminum	mg/L	-	**6.04**	**3.48**	**3.18**	**0.810**	**1.67**	**1.16**	**2.52**
Antimony	mg/L	-	0.0020 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0036 J	0.003 J	0.004 J
Barium	mg/L	0.198	0.230	0.257	0.263	0.247	0.231	0.226	0.176 J
Beryllium	mg/L	-	0.0005 J	0.0004 J	0.0004 J	0.0003 J	0.0100 U	0.001 U	0.001 U
Cadmium	mg/L	0.0003 J	0.0016 J	0.0006 J	0.0006 J	-	0.0050 U	0.00058 J	0.0014 J
Cadmium (dissolved)	mg/L	0.0006 J	-	-	-	0.0010 J	-	-	-
Calcium	mg/L	-	1.79	1.49	1.57	1.47	1.36	1.34	1.56
Chromium	mg/L	0.0017 J	0.0018 J	0.0012 J	0.0012 J	0.0010 J	0.0100 U	0.01 U	0.01 U
Cobalt	mg/L	-	0.0401	0.0379	0.0400	0.0407	0.037	0.0346	0.0399
Copper	mg/L	0.0010 J	0.0019 J	0.0011 J	0.0100 U	0.0009 J	0.0100 U	0.025 U	0.025 U
Iron	mg/L	-	**2.79**	**2.06**	**2.11**	**1.02**	**1.48**	**0.796**	**2.37**
Iron (dissolved)	mg/L	-	**0.620**	**0.169**	**0.188**	0.0414 J	**0.147**	0.0171 J	**0.055**
Lead	mg/L	0.0100 U	0.0136	0.0100	0.0094 J	0.0100 U	0.0068 J	0.005 U	0.007
Magnesium	mg/L	-	3.61	3.67	3.86	3.78	3.47	3.35	3.24
Manganese	mg/L	-	**1.53**	**1.22**	**1.29**	**1.32**	**1.21**	**1.08**	**1.74**
Manganese (dissolved)	mg/L	-	**1.58**	**1.22**	**1.39**	**1.31**	1.33 J	**1.01**	**1.4**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U
Nickel	mg/L	-	0.0083 J	0.0088 J	0.0117 J	0.0050 J	0.0063 J	0.0066	0.0348
Potassium	mg/L	-	6.63	6.19 J	6.30 J	6.14	5.78	5.84	6.34
Selenium	mg/L	0.0200 U	0.0044 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U
Silver	mg/L	-	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.005 U
Sodium	mg/L	-	**8.23**	**7.38**	**7.70**	**8.44**	**8.14**	**7.06**	**10.5**
Thallium	mg/L	-	0.0022 J	0.0200 U	0.0200 U	0.0200 UJ	0.0200 U	0.01 U	0.01 U
Vanadium	mg/L	-	0.0022 J	0.0013 J	0.0016 J	0.0008 J	0.0014 J	0.005 U	0.005 U
Zinc	mg/L	-	0.0273	0.0253	0.0276	0.0228	0.0244	0.02	0.0239
Wet Chemistry									
Ammonia	mg/L	-	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.10 U	0.10 U
Nitrate (as N)	mg/L	-	2.87	3.72	3.68	3.18	3.1	3.2	3.7 J
Orthophosphate	mg/L	-	0.0100 UJ	0.00896 J	0.00784 J	0.0100 U	0.0109 U	0.25 U	0.0100 U
Sulfate	mg/L	**16**	**13.6**	**17.0**	**17.5**	**20.6**	**12.9**	**16**	**11**
Field Parameters									
pH	S.U	4.14	5.91	4.98	4.98	4.58	5.1	4.95	5.49
Dissolved Oxygen (DO)	mg/L	3.9	3.85	3.66	3.66	5.91	2.9	3.79	0.85
Oxidation-reduction potential (ORP)	mv	294	177	242	242	314	230	318	140

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitn

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-40	MW-40	MW-40	MW-40	MW-40
Location ID:		MW-40	MW-40	MW-40	MW-40	MW-40
Sample Name:		GW-013926-042514-DWH-106	GW-013926-101414-SAG-006	GW-013926-031715-SAG-006	GW-013926-102715-AWY-006	GW-013926-041216-MRB-005
Sample Date:		4/25/2014	10/14/2014	3/17/2015	10/27/2015	4/12/2016
Performance Event:		8th Post-injection	9th Post-injection	10th Post-injection	11th Post-injection	12th Post-injection
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	-	--	--	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.021 U	0.021 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	-	--	--	-
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L				150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**17**	**13**	**12**	**9.1**	**14**
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Parameters	Units	MW-40	MW-40	MW-40	MW-40	MW-40
Location ID:		*MW-40*	*MW-40*	*MW-40*	*MW-40*	*MW-40*
Sample Name:		*GW-013926-042514-DWH-106*	*GW-013926-101414-SAG-006*	*GW-013926-031715-SAG-006*	*GW-013926-102715-AWY-006*	*GW-013926-041216-MRB-005*
Sample Date:		*4/25/2014*	*10/14/2014*	*3/17/2015*	*10/27/2015*	*4/12/2016*
Performance Event:		*8th Post-injection*	*9th Post-injection*	*10th Post-injection*	*11th Post-injection*	*12th Post-injection*
Metals (Totals)						
Aluminum	mg/L	**0.415**	**0.851**	**1.58**	**0.647**	**0.847**
Antimony	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.000255 J
Arsenic	mg/L	0.005 U	0.005 U	0.000264 J	0.005 U	0.000206 J
Barium	mg/L	0.196	0.191	0.195	0.168	0.182
Beryllium	mg/L	0.001 U	0.000341 J	0.001 U	0.000256 J	0.000304 J
Cadmium	mg/L	0.0007 U	0.000515 J	0.000856	0.000467 J	0.000602 J
Cadmium (dissolved)	mg/L	-	-		--	-
Calcium	mg/L	1.37	1.31	1.29	1.3	1.33
Chromium	mg/L	0.005 U	0.000557 J	0.000864 J	0.000659 J	0.000951 J
Cobalt	mg/L	0.0232	0.0204	0.0201	0.01	0.0116
Copper	mg/L	0.002 U	0.00212	0.00343	0.00143 J	0.00184 J
Iron	mg/L	**0.262**	**0.683**	**1.05**	**0.533**	**0.643**
Iron (dissolved)	mg/L	**0.139**	0.1 U	0.1 U	0.1 U	0.1 U
Lead	mg/L	0.00173	0.00311	0.00513	0.00224	0.00297
Magnesium	mg/L	2.75	2.71	2.6	2.13	2.41
Manganese	mg/L	**0.727**	**0.85**	**0.794**	**0.532**	**0.655**
Manganese (dissolved)	mg/L	**0.729**	**0.673**	**0.637**	**0.46**	**0.634**
Mercury	mg/L	0.00020 U	0.00020 U	0.00020 U	0.00004 J	0.00020 U
Nickel	mg/L	0.00549	0.00508	0.00459 J	0.00417 J	0.00555
Potassium	mg/L	5.17	5.2	5.15	4.74	4.67
Selenium	mg/L	0.005 U	0.00098 J	0.00101 J	0.000952 J	0.000906 J
Silver	mg/L	0.001 U	0.001 U	0.001 U	0.000037 J	0.001 U
Sodium	mg/L	**5.81**	**5.67**	**6.32**	**6.23**	**6.38**
Thallium	mg/L	0.001 U	0.001 U	0.000565 J	0.000526 J	0.000631 J
Vanadium	mg/L	0.005 U	0.005 U	0.0014 J	0.000561 J	0.000813 J
Zinc	mg/L	0.0141	0.0163	0.0194	0.0227	0.027
Wet Chemistry						
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 UJ	0.020 U
Nitrate (as N)	mg/L	2	1.4	1.9	1.6	2.9
Orthophosphate	mg/L	0.0155	0.00313 J	0.0100 U	0.0100 U	0.0100 U
Sulfate	mg/L	**13**	**13**	**8.9**	**8.7**	**10**
Field Parameters						
pH	S.U	4.63	4.99	4.9	4.92	4.28
Dissolved Oxygen (DO)	mg/L	6.44	3.81	2.37	5.41	3.09
Oxidation-reduction potential (ORP)	mv	244	265	203	392	324

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitn

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MV
	Sample Name:	GW-020311-SAG-105	GW-051811-DJB-005	GW-070611-EAH-001	GW-101111-DJB-101	GW-042412-AWY-002	GW-042412-AWY-003	GW-10301
	Sample Date:	2/3/2011	5/18/2011	7/6/2011	10/11/2011	4/24/12	4/24/12	10/30
	Performance Event:	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-Injection	4th Post-Injection	5th Post
Parameters	***Units***							
Volatile Organic Compounds								
Bromoform	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	0.70 J	5.0 U	0.69 J	0.73 J	0.6
cis-1,2-Dichloroethene	ug/L	**8.6**	1.0 J	5.0 U	5.0 U	0.65 J	5.0 U	2.
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	**6.2**	5.0 U	5.0 U	5.0 U	10
Methyl tert butyl ether (MTBE)	ug/L	**17**	5.8 J	**6.2**	5.0 U	5.8	5.9	4.
Tetrachloroethene	ug/L	**1800**	**630**	**170**	**390**	**610**	**530**	**5**
Trichloroethene	ug/L	**13**	2.4 J	5.0 U	5.0 U	1.9 J	2.2 J	3.
Metals								
Sodium	mg/L	-	**395**	**763**	**1130**	**616**	**578**	**2**
Wet Chemistry								
Sulfate	mg/L	**7.0**	**377**	**1540**	**2560**	**924**	**898**	**1**
Field Parameters								
pH	S.U	4.99	5.02	4.61	6.87	6.63	6.63	7
Dissolved Oxygen (DO)	mg/L	1.38	3.97	3.17	5.72	3.86	3.86	2
Oxidation-reduction potential (ORP)	mv	377	502	385	547	436	436	2

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27	MW-27
	Sample Name:	GW-013926-042414-DWH-101	GW-013926-042414-DWH-102	GW-013926-101414-SAG-001	GW-013926-031715-SAG-001	GW-013926-10271
	Sample Date:	4/24/2014	4/24/2014	10/14/2014	3/17/2015	10/27/201
	Performance Event:	8th Post-injection	8th Post-injection	9th Post-injection	10th Post-injection	11th Post-inje
Parameters	**Units**		Duplicate			
Volatile Organic Compounds						
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	**1.3**	**1.4**	1.0 U	1.0 U	1.7
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	**2.2**	**2.3**	1.5	**1.7**	**1.4**
Tetrachloroethene	ug/L	**540**	**520**	**580**	**340**	**540**
Trichloroethene	ug/L	**3.4**	**3.3**	**3.9**	**3.4**	**3.9**
Metals						
Sodium	mg/L	**68.5**	**67.1**	**49.6**	**50**	**48.6**
Wet Chemistry						
Sulfate	mg/L	**14**	**14**	**9.7**	**14**	**11**
Field Parameters						
pH	S.U	6.31	-	6.15	5.55	5.93
Dissolved Oxygen (DO)	mg/L	1.96	-	4.51	2.01	2.69
Oxidation-reduction potential (ORP)	mv	194	-	196	179	326

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MV
	Sample Name:	GW-020311-SAG-107	GW-051811-DJB-004	GW-070611-EAH-002	GW-101111-SAG-002	GW-042412-AWY-001	GW-103012-BCW-108	GW-04161
	Sample Date:	2/3/2011	5/18/2011	7/6/2011	10/11/2011	4/24/12	10/30/2012	4/16
	Performance Event:	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post
Parameters	**Units**							
Volatile Organic Compounds								
Bromoform	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	10.0 U	10
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 UJ	**5.8**	5.0 U	5.0 U	0.65 J	0.6
cis-1,2-Dichloroethene	ug/L	**10**	5.0 UJ	5.0 U	5.0 U	5.0 U	1.3 J	1.
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	**6.5**	5.0 U	5.0 U	10.0 U	10
Methyl tert butyl ether (MTBE)	ug/L	**13**	3.9 J	2.0 J	1.7J	1.4 J	3.7 J	3.
Tetrachloroethene	ug/L	**1800**	**520 J**	**94**	**210J**	**53**	**451**	**8**
Trichloroethene	ug/L	**13**	0.83 J	5.0 U	5.0 U	5.0 U	2.6 J	3.
Metals								
Sodium	mg/L	-	**169**	**221**	**537**	**988**	**283**	**1**
Wet Chemistry								
Sulfate	mg/L	**4.2**	**77.5**	**370**	**1310**	**884**	**500**	**1**
Field Parameters								
pH	S.U	5.21	4.65	3.93	4.08	4.69	5.32	7
Dissolved Oxygen (DO)	mg/L	1.54	1.14	1.64	9.05	8.58	4.92	2
Oxidation-reduction potential (ORP)	mv	395	532	550	496	374	379	2

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-28	MW-28	MW-28	MW-28	MW-28
	Sample Name:	GW-013926-042414-DWH-103	GW-013926-101414-SAG-002	GW-013926-101414-SAG-003	GW-013926-031715-SAG-002	GW-013926-10271
	Sample Date:	4/24/2014	10/14/2014	10/14/2014	3/17/2015	10/27/201
	Performance Event:	8th Post-injection	9th Post-injection	9th Post-injection	10th Post-injection	11th Post-inje
Parameters	**Units**			Duplicate		
Volatile Organic Compounds						
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	**1.4**	1.0 U	1.0 U	1.0 U	1.8
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	**2.7**	1.5	1.4	**1.6**	**1.6**
Tetrachloroethene	ug/L	**650**	**570**	**590**	**320**	**590**
Trichloroethene	ug/L	**3.2**	**3.5**	**3.6**	**3.5**	**3.9**
Metals						
Sodium	mg/L	**72.6**	**60.4**	**66.9**	**70.1**	**74.5**
Wet Chemistry						
Sulfate	mg/L	**30**	**14**	**15**	**14**	**12**
Field Parameters						
pH	S.U	5.96	5.99	-	5.98	6.19
Dissolved Oxygen (DO)	mg/L	2.01	3.54	-	2.29	3.3
Oxidation-reduction potential (ORP)	mv	199	200	-	151	325

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-3
	Sample Name:	GW-020311-EAH-008	GW-051711-DJB-003	GW-070611-EAH-003	GW-101111-SAG-001	GW-042412-BCW-100	GW-103012-BCW-109	GW-041613-
	Sample Date:	2/3/2011	5/17/2011	7/6/2011	10/11/2011	4/24/12	10/30/2012	4/16/20
	Performance Event:	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-in
Parameters	**Units**							
Volatile Organic Compounds								
Bromoform	ug/L	**22**	**9.6**	10 J	11 J	4.5 J	1.7 J	10.0
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	7.5 J	5.0UJ	0.45 J	0.76 J	0.63
cis-1,2-Dichloroethene	ug/L	**8.2**	5.0 U	5.0 UJ	5.0UJ	0.64 J	2.7 J	3.3
Dibromochloromethane	ug/L	5.0 U	5.0 U	7.1 J	5.0UJ	5.0 U	10.0 U	10.0
Methyl tert butyl ether (MTBE)	ug/L	**14**	**6.7**	5.0 UJ	0.9UJ	2.5 J	2.9 J	3.3
Tetrachloroethene	ug/L	**2000**	**2000**	13 J	**120J**	**200**	**453**	**874**
Trichloroethene	ug/L	**13**	2.2 J	5.0 UJ	5.0UJ	1.2 J	4.6 J	6.2
Metals								
Sodium	mg/L	-	**83.9**	**282**	**320**	**146**	**91.3**	**57.1**
Wet Chemistry								
Sulfate	mg/L	**160**	**84.1**	**250**	**1230**	**505**	**210**	**96**
Field Parameters								
pH	S.U	4.98	5.90	3.44	3.91	5.6	5.51	7.03
Dissolved Oxygen (DO)	mg/L	6.31	4.86	1.74	5.45	8.03	3.19	1.93
Oxidation-reduction potential (ORP)	mv	363	478	597	491	315	342	239

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	***MW-32***	***MW-32***	***MW-32***	***MW-32***	***MW-32***
	Sample Name:	***GW-013926-031715-SAG-003***	***GW-013926-031715-SAG-004***	***GW-013926-102715-AWY-004***	***GW-013926-041216-MRB-002***	***GW-013926-04121***
	Sample Date:	***3/17/2015***	***3/17/2015***	***10/27/2015***	***4/12/2016***	***4/12/2016***
	Performance Event:	***10th Post-injection***	***10th Post-injection***	***11th Post-injection***	***12th Post-injection***	***12th Post-inje***
Parameters	***Units***		***Duplicate***			***Duplicat***
Volatile Organic Compounds						
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	**3.4**	**3.4**	**2.9**	1.0 U	**1.4**
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	**1.7**	**1.6**	**1.4**	**1.2**	0.99 J
Tetrachloroethene	ug/L	**1000**	**1000**	**870**	**950**	**960**
Trichloroethene	ug/L	**6.5**	**6.8**	**5.7**	**4.6**	**4.4**
Metals						
Sodium	mg/L	**35.5**	**36.2**	**31**	**27.5**	**29.1**
Wet Chemistry						
Sulfate	mg/L	**30**	**29**	**23**	**9.2**	**10**
Field Parameters						
pH	S.U	5.57	-	5.69	5.71	-
Dissolved Oxygen (DO)	mg/L	2.63	-	4.47	4.5	-
Oxidation-reduction potential (ORP)	mv	160	-	334	195	-

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39
	Sample Name:	GW-021611-DJB-216	GW-021611-DJB-217	GW-051711-DJB-002	GW-070611-DJB-103	GW-101111-DJB-102	GW-042412-BCW-101
	Sample Date:	2/16/2011	2/16/2011	5/17/2011	7/6/2011	10/11/2011	4/24/12
	Performance Event:	Pre-injection	(DUP) Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection
Parameters	**Units**						
Volatile Organic Compounds							
Bromoform	ug/L	**60**	**57**	**220**	**220**	**170**	**150**
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.87 J
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	**9.1**	**9.0**	**11**	**11**	**5.6**	**5.4**
Tetrachloroethene	ug/L	**330**	**360**	**220**	**210**	**200**	**130**
Trichloroethene	ug/L	3.6 J	3.2 J	5.0 U	1.5 J	5.0U	5.0U
Metals							
Sodium	mg/L	-	-	**9.42**	**17.7**	**22**	**33**
Wet Chemistry							
Sulfate	mg/L	**1.2**	**1.1**	1.43 U	**4.40**	**5.29**	**39.9**
Field Parameters							
pH	S.U	4.24	4.24	5.67	4.10	5.43	4.65
Dissolved Oxygen (DO)	mg/L	5.23	5.23	5.73	4.70	6.91	8.12
Oxidation-reduction potential (ORP)	mv	328	328	403	447	444	379

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	***MW-39***	***MW-39***	***MW-39***	***MW-39***	***MW-39***
	Sample Name:	***GW-103012-BCW-106***	***GW-103012-BCW-107***	***GW-041613-CRM-004***	***GW-041613-CRM-005***	***GW-013926-102313-SAG-006***
	Sample Date:	***10/30/2012***	***10/30/2012***	***4/16/2013***	***4/16/2013***	***10/24/2013***
	Performance Event:	***5th Post-injection***	***5th Post-injection***	***6th Post-injection***	***6th Post-injection***	***7th Post-injection***
Parameters	***Units***		***Duplicate***		***Duplicate***	
Volatile Organic Compounds						
Bromoform	ug/L	**248**	**239**	**132**	**140**	**73**
Chloroform (Trichloromethane)	ug/L	068 J	0.80 J	0.50 J	0.45 J	**0.73 J**
cis-1,2-Dichloroethene	ug/L	10.0 U	10.0 U	10.0 U	0.22 J	1.0 U
Dibromochloromethane	ug/L	0.87 J	1.1 J	0.48 J	0.45 J	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.6 J	1.9 J	1.4 J	1.4 J	**0.52 J**
Tetrachloroethene	ug/L	**56**	**62.8**	**168**	**136**	**46**
Trichloroethene	ug/L	10.0 U	10.0 U	0.54 J	10.0 U	1.0 U
Metals						
Sodium	mg/L	**43.4**	**43.6**	**42.3**	**42.9**	**43.3**
Wet Chemistry						
Sulfate	mg/L	**63**	**60**	**55**	**60**	**66**
Field Parameters						
pH	S.U	4.40	4.40	6.21	6.21	4.71
Dissolved Oxygen (DO)	mg/L	6.95	6.95	4.86	4.86	7.97
Oxidation-reduction potential (ORP)	mv	438	438	384	384	309

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-39	MW-39	MW-39	MW-39	MW-39
	Sample Name:	GW-013926-042514-DWH-105	GW-013926-101414-SAG-005	GW-013926-031715-SAG-005	GW-013926-102715-AWY-005	GW-013926-04121
	Sample Date:	4/25/2014	10/14/2014	3/17/2015	10/27/2015	4/12/2016
	Performance Event:	8th Post-injection	9th Post-injection	10th Post-injection	11th Post-injection	12th Post-inje
Parameters	***Units***					
Volatile Organic Compounds						
Bromoform	ug/L	**6.1**	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**160**	**46**	**24**	**35**	**94**
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals						
Sodium	mg/L	**28.4**	**14.3**	**12.4**	**18.2**	**13.7**
Wet Chemistry						
Sulfate	mg/L	**57**	**26**	**13**	**22**	**13**
Field Parameters						
pH	S.U	4.47	4.93	4.72	4.86	4.59
Dissolved Oxygen (DO)	mg/L	6.42	5.33	3.75	6.08	4.07
Oxidation-reduction potential (ORP)	mv	183	268	281	350	305

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-4
	Sample Name:	GW-021611-DJB-218	GW-051711-DJB-001	GW-070611-DJB-101	GW-070611-DJB-102	GW-101111-SAG-004	GW-042412-BCW-102	GW-102912-
	Sample Date:	2/16/2011	5/17/2011	7/6/2011	7/6/2011	10/11/2011	4/24/12	10/29/2
	Performance Event:	Pre-injection	1st Post-injection	2nd Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-in
Parameters	**Units**				Duplicate			
Volatile Organic Compounds								
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.2 J	5.0 U	5.0 U	5.0 U	10.0
cis-1,2-Dichloroethene	ug/L	5.0 U	3.2 J	5.0 U	3.1 J	5.0 U	2.3 J	10.0
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0
Tetrachloroethene	ug/L	**71**	**54**	**77**	**79**	**64**	**42**	**29.3**
Trichloroethene	ug/L	5.0 U	5.0 U	1.5 J	1.7 J	5.0 U	0.98 J	10.0
Metals								
Sodium	mg/L	-	**8.23**	**7.38**	**7.70**	**8.44**	**8.14**	**7.06**
Wet Chemistry								
Sulfate	mg/L	**16**	**13.6**	**17.0**	**17.5**	**20.6**	**12.9**	**16**
Field Parameters								
pH	S.U	4.41	5.91	4.98	4.98	4.58	5.1	4.95
Dissolved Oxygen (DO)	mg/L	3.90	3.85	3.66	3.66	5.91	2.9	3.79
Oxidation-reduction potential (ORP)	mv	294	177	242	242	314	230	318

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Location ID:	MW-40	MW-40	MW-40	MW-40	MW-40
	Sample Name:	GW-013926-102413-DJB-102	GW-013926-102413-DJB-103	GW-013926-042514-DWH-106	GW-013926-101414-SAG-006	GW-013926-031715-SA
	Sample Date:	10/24/2013	10/24/2013	4/25/2014	10/14/2014	3/17/2015
	Performance Event:	7th Post-injection	7th Post-injection	8th Post-injection	9th Post-injection	10th Post-injectic
Parameters	***Units***		***Duplicate***			
Volatile Organic Compounds						
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**40**	**37**	**17**	**13**	**12**
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals						
Sodium	mg/L	**7.73**	**7.33**	**5.81**	**5.67**	**6.32**
Wet Chemistry						
Sulfate	mg/L	**15**	**16**	**13**	**13**	**8.9**
Field Parameters						
pH	S.U	3.99	3.99	4.63	4.99	4.9
Dissolved Oxygen (DO)	mg/L	3.59	3.59	6.44	3.81	2.37
Oxidation-reduction potential (ORP)	mv	405	405	244	265	203

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	
Sample ID:		GW-021110-EAH-023	GW-101211-SAG-009	GW-042512-AWY-005	GW-102412-DJB-001	GW-041713-EAH-102	GW-013926-102413-DJB-106	GW-013
Sample Date:		2/11/2011	10/12/2011	4/25/2012	10/24/2012	4/17/2013	10/24/2013	
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	90	260	200	74.4	54.9	54	
1,1,2,2-Tetrachloroethane	ug/L	11	4.0 J	6.5	6.4 J	11.8	1.4	
1,1,2-Trichloroethane	ug/L	5.4	6.6	6.9	5.6 J	7.6 J	1.0 U	
1,1-Dichloroethane	ug/L	69	84	79	45.8	33.1	23	
1,1-Dichloroethene	ug/L	15	21	18	8.5 J	6.1 J	4.9	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	0.64 J	1.4 J	1.0 U	
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	4.2 J	1.8 J	1.9 J	1.5 J	2.5 J	1.0 U	
1,2-Dichloroethane	ug/L	6.0	2.7 J	3.6 J	3.1 J	3.6 J	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	2.4 J	1.2 J	0.98 J	0.74 J	1.4 J	1.0 U	
1,4-Dichlorobenzene	ug/L	3.0 J	1.3 J	1.3 J	0.92 J	1.5 J	1.0 U	
1,4-Dioxane	ug/L		-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	50 U	10.0 U	10.0 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	
Acetone	ug/L	50 U	50 U	50 U	10.6 J	25.0 U	20 U	
Benzene	ug/L	11	4.6 J	5.6	3.7 J	5.9 J	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	
Chlorobenzene	ug/L	10	3.7 J	4.6 J	3.6 J	6.4 J	1.0 U	
Chloroethane	ug/L	5.6 J	2.8 J	4.1 J	4.6 J	4.2 J	1.0 U	
Chloroform (Trichloromethane)	ug/L	7.0	5.0 J	6.2	3.3 J	2.7 J	1.0	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	310	130	190	129	164	**21**	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	1.4 J	1.7 J	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.45 J	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Tetrachloroethene	ug/L	170	440	450	133	121	190	
Toluene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.28 J	1.0 U	

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	
	Sample ID:	GW-021110-EAH-023	GW-101211-SAG-009	GW-042512-AWY-005	GW-102412-DJB-001	GW-041713-EAH-102	GW-013926-102413-DJB-106	GW-013
	Sample Date:	2/11/2011	10/12/2011	4/25/2012	10/24/2012	4/17/2013	10/24/2013	
Parameters	**Units**							
Metals								
Arsenic	mg/L	-	0.0500 U	0.0500 U	0.01 U	0.0034 J	0.00121 J	
Arsenic (dissolved)	mg/L	-	-	-	-	-	-	
Barium	mg/L	-	0.242	0.249	0.201	0.358	0.178	
Barium (dissolved)	mg/L	-	-	-	-	-	-	
Cadmium	mg/L	-	0.0050 U	0.0050 U	0.005 U	0.005 U	0.0007 U	
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	
Chromium	mg/L	-	0.0011 J	0.0012 J	0.01 U	0.0032 J	0.005 U	
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-	
Copper	mg/L	-	0.0100 U	0.0100 U	0.0036 J	0.0021 J	0.000559 J	
Copper (dissolved)	mg/L	-	-	-	-	-	-	
Iron	mg/L	17.3	12.9	9.11	7.37	13.8	3.16	
Iron (dissolved)	mg/L	12.9	-	-	-	-	-	
Lead	mg/L	-	0.0100 U	0.0100 U	0.005 U	0.005 U	0.000199 J	
Lead (dissolved)	mg/L	-	-	-	-	-	-	
Manganese	mg/L	10.9 J	9.35	5.63	4.75	4.22	7.42	
Manganese (dissolved)	mg/L	10.0 J	-	-	-	-	-	
Selenium	mg/L	-	0.0083 J	0.0200 U	0.01 U	0.01 U	0.005 U	
Selenium (dissolved)	mg/L	-	-	-	-		-	
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9 U	1.2 J	4.1 J	9 U	
Ethene	ug/L	7 U	7 U	7 U	3.6 J	7.7	7 U	
Methane	ug/L	1400	99	85	90.5	315	5	
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	42.9	27.8	45.2	44.5	43.8	45.1	
Ammonia	mg/L	-	0.188 J	0.200 U	0.15 J	0.10 U	0.101	
Chloride	mg/L	58	44	38	-	37	22	
Ferrous iron	mg/L	12.6	-	-	26	-	-	
Nitrate (as N)	mg/L	0.25 U	2.5 U	0.057 J	0.25 U	0.25 UJ	4.1	
Orthophosphate	mg/L	-	0.0100 U	0.0383	0.36	0.25 U	0.00376 J	
Sulfate	mg/L	18	9.6 J	3.1	3.1	1.6	4.8	
Total organic carbon (TOC)	mg/L	4.12 U	4.83	3.35	9.7	14.1	6.40	
Field Parameters								
pH	S.U	5.32	5.69	5.32	5.94	5.68	4.95	
DO	mg/L	0.52	0.68	0.65	2.55	1.31	0.0	
ORP	mv	117	90	61	83	67	242	

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	
Sample ID:		GW-013926-041316-MRB-010	GW-020911-DJB-208	GW-101211-DJB-107	GW-042612-AWY-013	GW-102512-DJB-007	GW-041713-DJB-203	GW-0139
Sample Date:		4/13/2016	2/9/2011	10/12/2011	4/26/2012	10/25/2012	4/17/2013	1
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	24	5.0 U	5.0 U	5.0 U	1.3 J	10.0 U	
1,1,2,2-Tetrachloroethane	ug/L	2.0	5.0 U	5.0 U	5.0 U	4.0 J	10.0 U	
1,1,2-Trichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
1,1-Dichloroethane	ug/L	5.6	4.9 J	4.0 J	1.7 J	23.9	2.3 J	
1,1-Dichloroethene	ug/L	1.7 J	3.1 J	3.0 J	1.5 J	12.0 J	1.3 J	
1,2,4-Trichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
1,2,4-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
1,2-Dichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	1.5 J	10.0 U	
1,2-Dichloropropane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
1,3,5-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
1,4-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
1,4-Dioxane	ug/L	150 U	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	50 U	50 U	50 U	20.0 U	10.0 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	20.0 U	10.0 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	20.0 U	10.0 U	
Acetone	ug/L	20 U	50 U	50 U	50 U	50.0 U	25.0 U	
Benzene	ug/L	1.0 U	5.0 U	0.41 J	5.0 U	5.4 J	0.26 J	
Bromodichloromethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Bromoform	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Bromomethane (Methyl bromide)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Carbon tetrachloride	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Chlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Chloroethane	ug/L	1.0 U	10 U	10 U	10 U	9.4 J	10.0 U	
Chloroform (Trichloromethane)	ug/L	0.97 J	5.0 U	5.0 U	5.0 U	3.8 J	10.0 U	
Chloromethane (Methyl chloride)	ug/L	1.0 U	10 U	10 U	10 U	20.0 U	10.0 U	
cis-1,2-Dichloroethene	ug/L	12	33	30	8.8	208	14.9	
cis-1,3-Dichloropropene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Cyclohexane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Dibromochloromethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	10 U	10 U	10 U	20.0 U	10.0 U	
Ethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Isopropyl benzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Methyl acetate	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Methyl cyclohexane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	2.3 J	10.0 U	
Styrene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	
Tetrachloroethene	ug/L	83	11	7.5	4.8 J	35.7	6.4 J	
Toluene	ug/L	1.0 U	5.0 U	31	5.0 U	20.0 U	10.0 U	

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	
	Sample ID:	GW-013926-041316-MRB-010	GW-020911-DJB-208	GW-101211-DJB-107	GW-042612-AWY-013	GW-102512-DJB-007	GW-041713-DJB-203	GW-0139
	Sample Date:	4/13/2016	2/9/2011	10/12/2011	4/26/2012	10/25/2012	4/17/2013	1
Parameters	**Units**							
Metals								
Arsenic	mg/L	0.00235 J	0.0500 U	0.0500 U	0.0500 U	0.005 U	0.01 U	
Arsenic (dissolved)	mg/L	-	0.0500 U	-	-	-	-	
Barium	mg/L	0.278	0.171	0.179	0.115	0.194	0.153 J	
Barium (dissolved)	mg/L	-	0.148	-	-	-	-	
Cadmium	mg/L	0.000496 J	0.0050 U	0.0050 U	0.0050 U	0.001 U	0.005 U	
Cadmium (dissolved)	mg/L	-	0.0050 U	-	-	-	-	
Chromium	mg/L	0.005 U	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.01 U	
Chromium Total (dissolved)	mg/L	-	0.0100 U	-	-	-	-	
Copper	mg/L	0.00236	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.025 U	
Copper (dissolved)	mg/L	-	0.0100 U	-	-	-	-	
Iron	mg/L	6.69	0.157	0.100 U	0.0427 J	0.05 U	0.039 J	
Iron (dissolved)	mg/L	--	0.100 U	-	-	-	-	
Lead	mg/L	0.00102	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.005 U	
Lead (dissolved)	mg/L	-	0.0100 U	-	-	-	-	
Manganese	mg/L	--	2.51	2.81	1.75	3.89	1.83	
Manganese (dissolved)	mg/L	-	2.26	-	-	-	-	
Selenium	mg/L	0.000572 J	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	
Selenium (dissolved)	mg/L		0.0200 U	-	-	-		
Dissolved Gas								
Ethane	ug/L	9.0 U	9 U	9 U	9 U	6.2 U	6.2 U	
Ethene	ug/L	7.0 U	7 U	7 U	7 U	6.2 U	6.2 U	
Methane	ug/L	4.0 U	4 U	21	180	49.6	10.2	
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	22.0	37.9	34.1	28.8	41.0	29.0	
Ammonia	mg/L	0.020 U	-	0.056 J	0.200 U	0.10 U	0.10 U	
Chloride	mg/L	18	8.5	8.7	5.9	-	5.7	
Ferrous iron	mg/L	-	0.100 UJ	-	-	14	-	
Nitrate (as N)	mg/L	6.1	6.8	9.4	4.0	5.6 J	7.6 J	
Orthophosphate	mg/L	0.00986 J	-	0.0389	0.0349	0.25 U	0.25 U	
Sulfate	mg/L	7.7	11	15	9.4	13	10	
Total organic carbon (TOC)	mg/L	4.72	5.00 U	2.89	0.984 J	8.0 J	6.1	
Field Parameters								
pH	S.U	5.39	4.96	5.63	5.16	5.63	5.84	
DO	mg/L	2.92	2.5	0.36	0.95	0.0	0.00	
ORP	mv	275	330	101	210	206	266	

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-4	MW-4	MW-4	MW-11	MW-11	MW-11
Sample ID:		GW-013926-031815-DJB-105	GW-013926-102915-DJB-108	GW-013926-041416-SAG-110	GW-021011-DJB-210	GW-101211-SAG-006	GW-042512-AWY
Sample Date:		3/18/2015	10/29/2015	4/14/2016	2/10/2011	10/12/2011	4/25/2012
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.4	3.5	4.4 J	3.4 J	1.8 J
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	1.5	6.9	9.6	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	2.0 U	3.7	5.2	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	ug/L	-	150 U	150 U	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	50 U	50 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	50 U	50 U	50 U
Benzene	ug/L	1.0 U	1.4	2.9	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.8	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	14	55	79	14	9.6	8.6
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	10	16	23	16	7.2	17
Toluene	ug/L	2.0	1.0 U	1.0 U	41	5.0 U	5.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-4	MW-4	MW-4	MW-11	MW-11	MW-11
Sample ID:		GW-013926-031815-DJB-105	GW-013926-102915-DJB-108	GW-013926-041416-SAG-110	GW-021011-DJB-210	GW-101211-SAG-006	GW-042512-AWY
Sample Date:		3/18/2015	10/29/2015	4/14/2016	2/10/2011	10/12/2011	4/25/2012
Parameters	**Units**						
Metals							
Arsenic	mg/L	0.005 U	0.005 U	0.000468 J	0.0500 U	0.0500 U	0.0500 U
Arsenic (dissolved)	mg/L	-	--	-	0.0500 U	-	-
Barium	mg/L	0.0181	0.173	0.171	0.119	0.110	0.107
Barium (dissolved)	mg/L	-	--	-	0.112	-	-
Cadmium	mg/L	0.0007 U	0.000165 J	0.0007 U	0.0005 J	0.0002 J	0.0004 J
Cadmium (dissolved)	mg/L	-	--	-	0.0050 U	-	-
Chromium	mg/L	0.000173 J	0.000486 J	0.005 U	0.0100 U	0.0100 U	0.0100 U
Chromium Total (dissolved)	mg/L	-	--	-	0.0100 U	-	-
Copper	mg/L	0.0015 J	0.00181 J	0.002 U	0.0100 U	0.0100 U	0.0100 U
Copper (dissolved)	mg/L	-	--	-	0.0100 U	-	-
Iron	mg/L	0.027 J	0.177	0.1 U	0.117	0.100 U	0.0431 J
Iron (dissolved)	mg/L	--	--	--	0.100 U	-	-
Lead	mg/L	0.00175	0.000552 J	0.000144 J	0.0100 U	0.0014 J	0.0100 U
Lead (dissolved)	mg/L	-	--	-	0.0100 U	-	-
Manganese	mg/L	0.005 U	3.28 J	--	1.03	0.867	0.852
Manganese (dissolved)	mg/L	--	--	-	1.02	-	-
Selenium	mg/L	0.000766 J	0.00111 J	0.000875 J	0.0200 U	0.0200 U	0.0200 U
Selenium (dissolved)	mg/L		--		0.0200 U	-	-
Dissolved Gas							
Ethane	ug/L	9 U	9.0 U	9.0 U	9 U	9 U	9 U
Ethene	ug/L	7 U	7.0 U	7.0 U	7 U	7 U	7 U
Methane	ug/L	2 J	11	160	4 U	4 U	4 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	36.0	50.0	36.0	8.7 J	8.9 J	10.0 U
Ammonia	mg/L	0.020 U	0.041	0.020 U	0.200 U	0.030 J	0.200 U
Chloride	mg/L	1.6	9.0	12	16	12	12
Ferrous iron	mg/L	-	--	-	0.100 UJ	-	-
Nitrate (as N)	mg/L	0.25 U	4.8	4.0	0.65	0.47	0.45
Orthophosphate	mg/L	0.0225	0.0315	0.0240	0.00584 J	0.0100 U	0.0118 U
Sulfate	mg/L	8.3	13	13	1.0 U	1.0 U	1.0 U
Total organic carbon (TOC)	mg/L	1.52 J	1.00 U	2.32	3.36	3.43	4.51
Field Parameters							
pH	S.U	6.79	5.55	5.36	5.21	5.29	4.88
DO	mg/L	0.23	0	4.10	9.02	4.77	4.03
ORP	mv	38	233	293	325	305	206

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-11	MW-11	MW-11	MW-11	MW-11
Sample ID:		GW-013926-050114-DWH-107	GW-013926-101514-SAG-008	GW-013926-031815-SAG-009	GW-013926-102815-SAG-008	GW-013926-041316-MRB-006
Sample Date:		5/1/2014	10/15/2014	3/18/2015	10/28/2015	4/13/2016
Parameters	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	2.0	1.0 U	3.0
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	7.1	4.1	13	6.4	8.2
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	17	17	12	7.9	11
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-11	MW-11	MW-11	MW-11	MW-11
	Sample ID:	GW-013926-050114-DWH-107	GW-013926-101514-SAG-008	GW-013926-031815-SAG-009	GW-013926-102815-SAG-008	GW-013926-041316-MRB-006
	Sample Date:	5/1/2014	10/15/2014	3/18/2015	10/28/2015	4/13/2016
Parameters	**Units**					
Metals						
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	--	-
Barium	mg/L	0.0906	0.0855	0.078	0.178	0.0655
Barium (dissolved)	mg/L	-	-	-	--	-
Cadmium	mg/L	0.0007 U	0.000471 J	0.000447 J	0.000616 J	0.000286 J
Cadmium (dissolved)	mg/L	-	-	-	--	-
Chromium	mg/L	0.005 U	0.005 U	0.000342 J	0.00526	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	--	-
Copper	mg/L	0.002 U	0.000917 J	0.00128 J	0.00926	0.00283
Copper (dissolved)	mg/L	-	-	-	--	-
Iron	mg/L	0.153	0.0802 J	0.154	5.1	0.308
Iron (dissolved)	mg/L	-	-	--	--	--
Lead	mg/L	0.001 U	0.000313 J	0.001 U	0.0063	0.000907 J
Lead (dissolved)	mg/L	-	-	-	--	-
Manganese	mg/L	0.868	0.962	0.912	1.82 J	--
Manganese (dissolved)	mg/L	-	-	--	--	-
Selenium	mg/L	0.005 U	0.000314 J	0.005 U	0.005 U	0.000368 J
Selenium (dissolved)	mg/L	-			--	
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7.0 U	7.0 U
Methane	ug/L	15	16	15	9.6	31
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	10.0 U	14.7	13.0	17.0	5.00
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.023	0.211
Chloride	mg/L	10	11	8.6	7.7	7.1
Ferrous iron	mg/L	-	-	-	--	-
Nitrate (as N)	mg/L	0.36	0.38	0.34	0.28	0.26
Orthophosphate	mg/L	0.0100 U	0.0100 U	0.00682 J	0.0126 U	0.00856 J
Sulfate	mg/L	1.0 U	0.91 J	9.5	2.8	0.39 J
Total organic carbon (TOC)	mg/L	4.36	3.04	5.00 U	3.16	7.48
Field Parameters						
pH	S.U	4.79	5.5	5.32	5.64	4.57
DO	mg/L	4.01	6.47	3.41	3.84	7.0
ORP	mv	217	302	211	197	261

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Sample ID:		GW-042412-BCW-103	GW-102512-BCW-102	GW-042313-DJB-209	GW-013926-102513-SAG-011	GW-013926-050114-DJB-011	GW-013926-101514-DJB-
Sample Date:		4/24/2012	10/25/2012	4/23/2013	10/25/2013	5/1/2014	10/15/2014
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.5 J	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	2.7 J	3.1 J	1.2 J	0.90 J	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.8 J	3.0 J	0.96 J	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	45.1	10.0 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	25.0 U	10.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	25.0 U	10.0 U	10 U	10 U	10 U
Acetone	ug/L	50 U	62.5 U	25.0 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	25.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	25.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	200	222	114	75	42	38
cis-1,3-Dichloropropene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	25.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	25.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	25.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	1.5 J	10.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	4.3 J	10.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	36	29.8	18.5	26	42	59
Toluene	ug/L	5.0 U	25.0 U	10.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Sample ID:		GW-042412-BCW-103	GW-102512-BCW-102	GW-042313-DJB-209	GW-013926-102513-SAG-011	GW-013926-050114-DJB-011	GW-013926-101514-DJB-
Sample Date:		4/24/2012	10/25/2012	4/23/2013	10/25/2013	5/1/2014	10/15/2014
Parameters	**Units**						
Metals							
Arsenic	mg/L	0.0035 J	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	-	-	-
Barium	mg/L	0.0955	0.0954 J	0.0739	0.0788	0.0978	0.112
Barium (dissolved)	mg/L	-	-	-	-	-	-
Cadmium	mg/L	0.0050 U	0.005 U	0.001 U	0.000282 J	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	-	-	-	-	-	-
Chromium	mg/L	0.0100 U	0.0024 J	0.0026 J	0.00386 J	0.00632	0.00514
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-
Copper	mg/L	0.0100 U	0.025 U	0.005 U	0.000926 J	0.002 U	0.005 U
Copper (dissolved)	mg/L	-	-	-	-	-	-
Iron	mg/L	0.235	0.158	0.05 U	0.312	0.1 U	0.164
Iron (dissolved)	mg/L	-	-	-	-	-	-
Lead	mg/L	0.0100 U	0.005 U	0.005 U	0.000443 J	0.001 U	0.001 U
Lead (dissolved)	mg/L	-	-	-	-	-	-
Manganese	mg/L	0.0732	0.0451	0.0207	0.0682	0.0888	0.109
Manganese (dissolved)	mg/L	-	-	-	-	-	-
Selenium	mg/L	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 UJ
Selenium (dissolved)	mg/L	-	-		-	-	
Dissolved Gas							
Ethane	ug/L	9 U	6.2 U	6.2 U	9 U	9 U	9 U
Ethene	ug/L	7 U	6.2 U	6.2 U	7 U	7 U	7 U
Methane	ug/L	4 U	6.6 U	6.6 U	4 U	4 U	4 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	11.5	8.4	7.3	9.5 J	10.0 U	15.9
Ammonia	mg/L	0.200 U	0.10 U	0.10 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	8.6	-	6.8	7.5	8.5	12
Ferrous iron	mg/L	-	8.4	-	-	-	-
Nitrate (as N)	mg/L	0.73	0.82 J	0.90 J	0.96	1.2	1.3
Orthophosphate	mg/L	0.0487	0.25 U	0.25 U	0.0446	0.0319	0.0363
Sulfate	mg/L	2.0	2.3	1.9	2.0	2.4	2.3
Total organic carbon (TOC)	mg/L	0.699 J	2.1 J	1.7	1.73	1.00 U	1.31
Field Parameters							
pH	S.U	5.37	5.61	5.53	5.28	5.56	5.44
DO	mg/L	6.0	3.32	5.21	4.30	3.57	2.78
ORP	mv	238	406	272	239	204	218

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	
Sample ID:		GW-020911-SAG-119	GW-101311-SAG-012	GW-042512-BCW-104	GW-102412-BCW-101	GW-042313-DJB-208	GW-013926-102413-SAG-007	GW-01:
Sample Date:		2/9/2011	10/13/2011	4/25/2012	10/24/2012	4/23/2013	10/24/2013	
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10.0 U	10.0 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	
Acetone	ug/L	50 U	50 U	50 U	25.0 U	25.0 U	20 U	
Benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Tetrachloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	
Toluene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	
Sample ID:		GW-020911-SAG-119	GW-101311-SAG-012	GW-042512-BCW-104	GW-102412-BCW-101	GW-042313-DJB-208	GW-013926-102413-SAG-007	GW-01:
Sample Date:		2/9/2011	10/13/2011	4/25/2012	10/24/2012	4/23/2013	10/24/2013	
Parameters	**Units**							
Metals								
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.01 U	0.01 U	0.005 U	
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	-	
Barium	mg/L	0.0443	0.0487	0.0778	0.0455 J	0.0461 J	0.0341	
Barium (dissolved)	mg/L	0.0383	-	-	-	-	-	
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.005 U	0.005 U	0.0007 U	
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	-	
Chromium	mg/L	0.0100 U	0.0015 J	0.0061 J	0.01 U	0.01 U	0.005 U	
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	-	
Copper	mg/L	0.0009 J	0.0100 U	0.0035 J	0.025 U	0.025 U	0.002 U	
Copper (dissolved)	mg/L	0.0100 U	-	-	-	-	-	
Iron	mg/L	0.332	1.21	5.33	0.682	0.842	0.149	
Iron (dissolved)	mg/L	0.100 U	-	-	-	-	-	
Lead	mg/L	0.0100 U	0.0008 J	0.0032 J	0.005 U	0.005 U	0.001 U	
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	-	
Manganese	mg/L	0.0039 J	0.0090 J	0.0320	0.0087 J	0.0063 J	0.00197 J	
Manganese (dissolved)	mg/L	0.0063 J	-	-	-	-	-	
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U	
Selenium (dissolved)	mg/L	0.0200 U	-	-	-		-	
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.2 U	9 U	
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.2 U	7 U	
Methane	ug/L	7	4 U	4 U	6.6 U	6.6 U	4 U	
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	11.9	10.0 U	12.3	8.8	10.7	9.5 J	
Ammonia	mg/L	-	0.020 J	0.200 U	0.48 J	0.10 U	0.020 U	
Chloride	mg/L	5.8	2.3	2.1	-	2.3	1.9	
Ferrous iron	mg/L	0.100 UJ	-	-	2.3	-	-	
Nitrate (as N)	mg/L	1.3	1.4	1.5	1.7	1.9	1.1	
Orthophosphate	mg/L	-	0.0171	0.0205	0.68	0.25 U	0.0153	
Sulfate	mg/L	14	16	14	13	16	12	
Total organic carbon (TOC)	mg/L	1.00 U	0.565 J	1.00 U	1.6	1.5	0.299 J	
Field Parameters								
pH	S.U	4.94	5.45	5.15	5.84	5.58	5.43	
DO	mg/L	6.5	5.14	7.63	4.83	7.58	7.08	
ORP	mv	455	290	276	352	256	280	

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-14	MW-14	MW-14	MW-14	MW-14
Sample ID:		GW-013926-101514-DJB-104	GW-013926-101514-DJB-105	GW-013926-031715-DJB-101	GW-013926-102815-DJB-103	GW-013926-041316-SAG-106
Sample Date:		10/15/2014	10/15/2014	3/17/2015	10/28/2015	4/13/2016
Parameters	**Units**		Duplicate			
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.021 U	0.021 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-14	MW-14	MW-14	MW-14	MW-14
Sample ID:		GW-013926-101514-DJB-104	GW-013926-101514-DJB-105	GW-013926-031715-DJB-101	GW-013926-102815-DJB-103	GW-013926-041316-SAG-106
Sample Date:		10/15/2014	10/15/2014	3/17/2015	10/28/2015	4/13/2016
Parameters	**Units**		Duplicate			
Metals						
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.00203 J	0.000421 J
Arsenic (dissolved)	mg/L	-	-	-	--	-
Barium	mg/L	0.0434	0.0401	0.0437	0.0446	0.0488
Barium (dissolved)	mg/L	-	-	-	--	-
Cadmium	mg/L	0.0007 U	0.0007 U	0.0007 U	0.000365 J	0.000188 J
Cadmium (dissolved)	mg/L	-	-	-	--	-
Chromium	mg/L	0.00115 J	0.000706 J	0.000522 J	0.00123 J	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	--	-
Copper	mg/L	0.005 U	0.005 U	0.0032	0.00167 J	0.002 U
Copper (dissolved)	mg/L	-	-	-	--	-
Iron	mg/L	0.705 J	0.267 J	0.2	0.622	0.465
Iron (dissolved)	mg/L	-	-	--	--	--
Lead	mg/L	0.001 U	0.001 U	0.000313 J	0.000864 J	0.000514 J
Lead (dissolved)	mg/L	-	-	-	--	-
Manganese	mg/L	0.00598	0.005 U	0.005 U	0.00566 J	--
Manganese (dissolved)	mg/L	-	-	--	--	-
Selenium	mg/L	0.000779 J	0.000742 J	0.000786 J	0.00138 J	0.00153 J
Selenium (dissolved)	mg/L				--	
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7.0 U	7.0 U
Methane	ug/L	4 U	4 U	4 U	4.0 U	4.0 U
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	18.8	19.6	17.0	17.0	21.0
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	2.1	2.1	1.8	2.1	2.5
Ferrous iron	mg/L	-	-	-	--	-
Nitrate (as N)	mg/L	1.6	1.5	1.5	1.5	1.7
Orthophosphate	mg/L	0.0175	0.0163	0.0159	0.0160 U	0.0103
Sulfate	mg/L	15	13	14	15	15
Total organic carbon (TOC)	mg/L	0.567 J	0.411 J	0.716 J	1.00 U	0.961 J
Field Parameters						
pH	S.U	5.90	-	5.53	-	5.1
DO	mg/L	6.39	-	5.72	-	1.27
ORP	mv	193	-	162	-	309

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-35	MW-35	MW-35	MW-35	MW-35	GW-0
Sample ID:		GW-041813-EAH-105	GW-013926-102513-DJB-107	GW-013926-102513-DJB-108	GW-013926-050114-DWH-109	GW-013926-101514-SAG-007	
Sample Date:		4/18/2013	10/25/2013	10/25/2013	5/1/2014	10/15/2014	
Parameters	**Units**			Duplicate			
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.2 J	1.3	1.4	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	34.2	40	45	14	20	
1,1,2-Trichloroethane	ug/L	1.3 J	1.3	1.6	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	10.6	11	13	3.2	3.5	
1,1-Dichloroethene	ug/L	4.2 J	5.2	5.9	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	0.78 J	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.021 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	1.4 J	1.2	1.4	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	2.8 J	2.8	3.1	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	0.30 J	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	4.1 J	4.0	4.1	1.8	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10.0 U	10 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10.0 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10.0 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	25.0 U	20 U	20 U	20 U	20 U	
Benzene	ug/L	23.3	20	22	4.8	1.1	
Bromodichloromethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	1.7 J	1.5	1.7	1.0 U	1.0 U	
Chloroethane	ug/L	10.0 U	4.7	5.8	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	2.2 J	2.6	3.0	1.3	1.1	
Chloromethane (Methyl chloride)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	74.5	76	86	28	44	
cis-1,3-Dichloropropene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	24.0	29	31	37	12	
Toluene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-35	MW-35	MW-35	MW-35	MW-35	GW-0
Sample ID:		GW-041813-EAH-105	GW-013926-102513-DJB-107	GW-013926-102513-DJB-108	GW-013926-050114-DWH-109	GW-013926-101514-SAG-007	
Sample Date:		4/18/2013	10/25/2013	10/25/2013	5/1/2014	10/15/2014	
Parameters	**Units**			Duplicate			
Metals							
Arsenic	mg/L	0.01 U	0.00052 J	0.000587 J	0.005 U	0.005 U	
Arsenic (dissolved)	mg/L	-	-	-	-	-	
Barium	mg/L	0.365	0.319	0.33	0.295	0.284	
Barium (dissolved)	mg/L	-	-	-	-	-	
Cadmium	mg/L	0.005 U	0.000369 J	0.000422 J	0.0007 U	0.000982	
Cadmium (dissolved)	mg/L	-	-	-	-	-	
Chromium	mg/L	0.01 U	0.005 U	0.005 U	0.005 U	0.000812 J	
Chromium Total (dissolved)	mg/L	-	-	-	-	-	
Copper	mg/L	0.025 U	0.000906 J	0.00134 J	0.002 U	0.00285	
Copper (dissolved)	mg/L	-	-	-	-	-	
Iron	mg/L	0.0614 J	0.0666 J	0.0886 J	0.1 U	0.234	
Iron (dissolved)	mg/L	-	-	-	-	-	
Lead	mg/L	0.005 U	0.000318 J	0.000329 J	0.001 U	0.000515 J	
Lead (dissolved)	mg/L	-	-	-	-	-	
Manganese	mg/L	0.451	0.397	0.463	0.501	0.412	
Manganese (dissolved)	mg/L	-	-	-	-	-	
Selenium	mg/L	0.01 U	0.005 U	0.005 U	0.005 U	0.00036 J	
Selenium (dissolved)	mg/L		-	-	-		
Dissolved Gas							
Ethane	ug/L	4.4 J	4 J	4 J	9 U	9 U	
Ethene	ug/L	6.2 U	7 U	7 U	7 U	7 U	
Methane	ug/L	1510	110	120	160	29	
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	6.1	10.6	10.2	10.0 U	14.5	
Ammonia	mg/L	0.10 UJ	0.020 U	0.020 U	0.020 U	0.020 U	
Chloride	mg/L	50	38	39	32	36	
Ferrous iron	mg/L	-	-	-	-	-	
Nitrate (as N)	mg/L	0.43	0.14 J	0.10 J	1.3	0.24 J	
Orthophosphate	mg/L	0.25 U	0.0169	0.0190	0.0131	0.0113	
Sulfate	mg/L	4.5	3.5 J	1.6 J	10	3.9	
Total organic carbon (TOC)	mg/L	7.5	4.34	4.59	3.67	2.92	
Field Parameters							
pH	S.U	5.66	4.31	4.31	4.39	4.89	
DO	mg/L	6.96	0.0	0.0	0.98	3.19	
ORP	mv	229	461	461	546	314	

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-35	MW-35	MW-42	MW-42	MW-42	MW-42
Sample ID:		GW-013926-041316-MRB-007	GW-013926-041316-MRB-008	GW-020911-EAH-017	GW-101211-SAG-011	GW-042612-BCW-107	GW-102512-DJB-004
Sample Date:		4/13/2016	4/13/2016	2/9/2011	10/12/2011	4/26/2012	10/25/2012
Parameters	**Units**		Duplicate				
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	16	11	11	50.0 U
1,1,2,2-Tetrachloroethane	ug/L	14	13	57	37	32	27.5 J
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	3.4 J	3.3 J	2.9 J	2.3 J
1,1-Dichloroethane	ug/L	1.7	1.7	110	94	46	63.9
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	140	110	45	64.8
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	5.0 U	5.0 U	5.0 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	0.76 J	50.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	7.1	5.9	6.0	5.4 J
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	0.93 J	1.0 J	50.0 U
1,4-Dioxane	ug/L	150 U	150 U	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	50 U	50 U	50 U	55.4
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	50.0 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10 U	10 U	50.0 U
Acetone	ug/L	20 U	20 U	50 U	50 U	50 U	125 U
Benzene	ug/L	1.0 U	1.0 U	34	21	14	13.1 J
Bromodichloromethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Bromoform	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 J	5.0 U	1.3 J	50.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Chloroethane	ug/L	1.0 U	1.0 U	10 U	10 U	1.3 J	50.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	57	39	39	35.7 J
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	10 U	10 U	10 U	50.0 U
cis-1,2-Dichloroethene	ug/L	39	38	1000	750	620	646
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	10 U	0.97 J	10 U	50.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	1.9 J
Methylene chloride	ug/L	5.0 U	5.0 U	3.6 J	3.2 J	5.0 U	7.0 J
Styrene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	50.0 U
Tetrachloroethene	ug/L	14	14	180	130	160	69.0
Toluene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	0.40 J	50.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-35	MW-35	MW-42	MW-42	MW-42	MW-42
Sample ID:		GW-013926-041316-MRB-007	GW-013926-041316-MRB-008	GW-020911-EAH-017	GW-101211-SAG-011	GW-042612-BCW-107	GW-102512-DJB-004
Sample Date:		4/13/2016	4/13/2016	2/9/2011	10/12/2011	4/26/2012	10/25/2012
Parameters	**Units**		Duplicate				
Metals							
Arsenic	mg/L	0.000504 J	0.00048 J	0.0500 U	0.0500 U	0.0500 U	0.01 U
Arsenic (dissolved)	mg/L	-	-	0.0500 U	-	-	-
Barium	mg/L	0.211	0.207	0.488	0.351	0.198	0.321
Barium (dissolved)	mg/L	-	-	0.125	-	-	-
Cadmium	mg/L	0.000211 J	0.00021 J	0.0050 U	0.0050 U	0.0050 U	0.005 U
Cadmium (dissolved)	mg/L	-	-	0.0050 U	-	-	-
Chromium	mg/L	0.005 U	0.005 U	0.0214	0.0130	0.0019 J	0.0112
Chromium Total (dissolved)	mg/L	-	-	0.0100 U	-	-	-
Copper	mg/L	0.00408	0.00411	0.0028 J	0.0014 J	0.0014 J	0.025 U
Copper (dissolved)	mg/L	-	-	0.0100 U	-	-	-
Iron	mg/L	0.304	0.307	11.1	7.27	1.44	6.16
Iron (dissolved)	mg/L	--	--	0.0316 J	-	-	-
Lead	mg/L	0.000614 J	0.000657 J	0.0100 U	0.0024 J	0.0100 U	0.005 U
Lead (dissolved)	mg/L	-	-	0.0100 U	-	-	-
Manganese	mg/L	--	--	0.218	0.176	0.0741	0.15
Manganese (dissolved)	mg/L	-	-	0.0501	-	-	-
Selenium	mg/L	0.00139 J	0.00158 J	0.0200 U	0.0200 U	0.0200 U	0.01 U
Selenium (dissolved)	mg/L			0.0200 U	-	-	-
Dissolved Gas							
Ethane	ug/L	9.0 U	9.0 U	9 U	9 U	9 U	6.2 U
Ethene	ug/L	7.0 U	7.0 U	7 U	7 U	7 U	6.2 U
Methane	ug/L	9.4	9.4	95	110	48	44.2
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	5.00	3.00 U	59.7	53.0	53.5	40.4
Ammonia	mg/L	0.141 J	0.052 J	-	0.060 J	0.200 U	0.10 U
Chloride	mg/L	29	30	2.2	2.0	1.9	-
Ferrous iron	mg/L	-	-	1.51 J	-	-	2.4
Nitrate (as N)	mg/L	0.38	0.38	0.42	0.38	0.67	0.72 J
Orthophosphate	mg/L	0.00703 J	0.00857 J	-	0.123	0.179	0.25 U
Sulfate	mg/L	2.7 J	9.9 J	1.5	0.56 J	0.62 J	1.0 U
Total organic carbon (TOC)	mg/L	5.49	5.67	0.730 J	3.25	2.32	4.3 J
Field Parameters							
pH	S.U	4.78	-	5.94	5.88	5.76	6.28
DO	mg/L	7.16	-	1.4	0.6	0.02	6.09
ORP	mv	262	-	147	153	149	127

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-42	MW-42	MW-42	MW-42	MW-42
Sample ID:		GW-013926-042514-DJB-009	GW-013926-101414-DJB-102	GW-013926-031915-DJB-109	GW-013926-102715-DJB-102	GW-013926-041216-SAG-102
Sample Date:		4/25/2014	10/14/2014	3/19/2015	10/27/2015	4/12/2016
Parameters	***Units***					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.4	3.8	5.1	4.1	2.6
1,1,2,2-Tetrachloroethane	ug/L	26	23	24	21	16
1,1,2-Trichloroethane	ug/L	2.4	1.0 U	1.0 U	2.0	1.0 U
1,1-Dichloroethane	ug/L	56	51	55	48	22
1,1-Dichloroethene	ug/L	65	66	68	60	25
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	3.9	3.9	4.4	3.8	2.4
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	1400	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.7	4.0	4.2	2.6	0.60 J
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	34	31	33	27	15
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	540	480	490	410	190
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	1.3 J	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	170	110	160	130	49
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-42	MW-42	MW-42	MW-42	MW-42
	Sample ID:	GW-013926-042514-DJB-009	GW-013926-101414-DJB-102	GW-013926-031915-DJB-109	GW-013926-102715-DJB-102	GW-013926-041216-SAG-102
	Sample Date:	4/25/2014	10/14/2014	3/19/2015	10/27/2015	4/12/2016
Parameters	**Units**					
Metals						
Arsenic	mg/L	0.005 U	0.005 U	0.000545 J	0.00167 J	0.000432 J
Arsenic (dissolved)	mg/L	-	-	-	--	-
Barium	mg/L	0.492	0.248	0.272	0.331	0.184
Barium (dissolved)	mg/L	-	-	-	--	-
Cadmium	mg/L	0.0007 U	0.0007 U	0.000681 J	0.000439 J	0.000359 J
Cadmium (dissolved)	mg/L	-	-	-	--	-
Chromium	mg/L	0.02 U	0.00119 J	0.00166 J	0.00652	0.00132 J
Chromium Total (dissolved)	mg/L	-	-	-	--	-
Copper	mg/L	0.00397	0.00214	0.00147 J	0.00195 J	0.000378 J
Copper (dissolved)	mg/L	-	-	-	--	-
Iron	mg/L	12.5	0.623	1.14	3.59	0.679
Iron (dissolved)	mg/L	-	-	--	--	--
Lead	mg/L	0.00281	0.000311 J	0.000725 J	0.00175	0.000261 J
Lead (dissolved)	mg/L	-	-	-	--	-
Manganese	mg/L	0.18	0.0302	0.0415	0.0703	--
Manganese (dissolved)	mg/L	-	-	--	--	-
Selenium	mg/L	0.005 U	0.000283 J	0.000559 J	0.00514	0.000989 J
Selenium (dissolved)	mg/L	-			--	
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7.0 U	7.0 U
Methane	ug/L	34	30	37	18	12
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	51.5	52.5	47.0	45.0	26.0
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 UJ	0.020 U
Chloride	mg/L	9.9	12	13	15	14 J
Ferrous iron	mg/L	-	-	-	--	-
Nitrate (as N)	mg/L	1.4	0.91	1.1	1.2	1.6
Orthophosphate	mg/L	0.158	0.146	0.141	0.137	0.147
Sulfate	mg/L	1.0 U	4.0 J	0.84 J	1.0 U	0.46 J
Total organic carbon (TOC)	mg/L	3.09	1.08	1.00 U	0.770 J	9.42
Field Parameters						
pH	S.U	6.14	5.97	5.86	-	5.32
DO	mg/L	5.92	0.63	0.60	-	0.0
ORP	mv	82	173	212	-	299

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		TW-2	TW-2	TW-2	TW-2	TW-2	
Sample ID:		GW-042313-DJB-207	GW-013926-102413-SAG-008	GW-013926-042414-DJB-007	GW-013926-101514-DJB-106	GW-013926-031715-DJB-102	GW-013
Sample Date:		4/23/2013	10/24/2013	4/24/2014	10/15/2014	3/17/2015	
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.021 U	0.020 U	
1,2-Dichlorobenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10.0 U	10 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10.0 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10.0 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	25.0 U	20 U	20 U	20 U	20 U	
Benzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,3-Dichloropropene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Toluene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Sample Location:	TW-2	TW-2	TW-2	TW-2	TW-2	
	Sample ID:	GW-042313-DJB-207	GW-013926-102413-SAG-008	GW-013926-042414-DJB-007	GW-013926-101514-DJB-106	GW-013926-031715-DJB-102	GW-013
	Sample Date:	4/23/2013	10/24/2013	4/24/2014	10/15/2014	3/17/2015	
Parameters	**Units**						
Metals							
Arsenic	mg/L	0.01 U	0.00021 J	0.005 U	0.005 U	0.000321 J	
Arsenic (dissolved)	mg/L	-	-	-	-	-	
Barium	mg/L	0.119 J	0.0411	0.0228	0.0234	0.0302	
Barium (dissolved)	mg/L	-	-	-	-	-	
Cadmium	mg/L	0.005 U	0.000241 J	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	-	-	-	-	-	
Chromium	mg/L	0.0084 J	0.000797 J	0.005 U	0.000991 J	0.00116 J	
Chromium Total (dissolved)	mg/L	-	-	-	-	-	
Copper	mg/L	0.0221 J	0.00179 J	0.002 U	0.005 U	0.0036	
Copper (dissolved)	mg/L	-	-	-	-	-	
Iron	mg/L	4	0.311	0.206	0.35	0.522	
Iron (dissolved)	mg/L	-	-	-	-	--	
Lead	mg/L	0.0063	0.000758 J	0.001 U	0.001 U	0.000604 J	
Lead (dissolved)	mg/L	-	-	-	-	-	
Manganese	mg/L	1.08	0.706	0.0679	0.12	0.157	
Manganese (dissolved)	mg/L	-	-	-	-	--	
Selenium	mg/L	0.01 U	0.005 U	0.005 U	0.005 UJ	0.005 U	
Selenium (dissolved)	mg/L		-	-			
Dissolved Gas							
Ethane	ug/L	6.2 U	9 U	9 U	9 U	9 U	
Ethene	ug/L	6.2 U	7 U	7 U	7 U	7 U	
Methane	ug/L	33.0	3 J	52	16	46	
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	30.5	33.2	27.2	36.8	25.0	
Ammonia	mg/L	0.10 U	0.020 U	0.020 U	0.020 U	0.020 U	
Chloride	mg/L	1.6	1.6	1.9	1.6	1.5	
Ferrous iron	mg/L	-	-	-	-	-	
Nitrate (as N)	mg/L	0.91	0.69	0.87	0.89	0.98	
Orthophosphate	mg/L	0.25 U	0.111	0.0991	0.0911	0.102	
Sulfate	mg/L	2.3	2.3	4.0	2.1	2.5	
Total organic carbon (TOC)	mg/L	1.0	2.93	1.00 U	0.918 J	0.788 J	
Field Parameters							
pH	S.U	7.06	6.48	6.72	6.64	6.55	
DO	mg/L	6.48	2.15	6.82	4.17	4.62	
ORP	mv	141	224	106	130	98	

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock Units
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MV
Sample ID:		GW-020211-EAH-001	GW-101111-SAG-005	GW-042412-AWY-004	GW-103012-DJB-011	GW-042213-EAH-106	GW-042213-EAH-107	GW-013926-1
Sample Date:		2/2/2011	10/11/2011	4/24/2012	10/30/2012	4/22/2013	4/22/2013	10/2
							Duplicate	
Parameters	***Units***							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	0.83 J	1.1 J	7.3 J	7.0 J	7
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.78 J	0.75 J	2.
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.57 J	0.31 J	1.
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.0
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	0.48 J	0.27 J	0.74 J	10.0 U	0.
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
1,4-Dioxane	ug/L	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	7.2 J	10.0 U	10.0 U	1
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1
Acetone	ug/L	17 J	11 J	5.8 J	109	25.0 U	25.0 U	2
Benzene	ug/L	5.0 U	5.0 U	5.0 U	0.38 J	2.1 J	1.8 J	2
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	5.
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.31 J	0.29 J	0.
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1.
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1.
cis-1,2-Dichloroethene	ug/L	16	15	30	37.9	161	159	1
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1.
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1.4 J	1.5 J	5.
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Tetrachloroethene	ug/L	14	1.8 J	2.1 J	1.5 J	9.8 J	9.4 J	-
Toluene	ug/L	5.0 U	5.0 U	5.0 U	0.48 J	0.46 J	10.0 U	1.
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.
Trichloroethene	ug/L	3.5 J	3.6 J	7.2	5.4 J	26.2	27.8	2
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	5.
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	1.2 J	12.8	10.2	5
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.90 J	10.0 U	1.

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock Units
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MV
Sample ID:		GW-020211-EAH-001	GW-101111-SAG-005	GW-042412-AWY-004	GW-103012-DJB-011	GW-042213-EAH-106	GW-042213-EAH-107	GW-013926-1
Sample Date:		2/2/2011	10/11/2011	4/24/2012	10/30/2012	4/22/2013	4/22/2013 Duplicate	10/2
Parameters	***Units***							
Metals								
Arsenic	mg/L	-	0.0500 U	0.0070 J	0.0049 J	0.01 U	0.01 U	0.0
Arsenic (dissolved)	mg/L	-	-		-	-	-	
Barium	mg/L	-	0.0154 J	0.0114 J	0.0648 J	0.0284 J	0.0196 J	0.0
Barium (dissolved)	mg/L	-	-		-	-	-	
Cadmium	mg/L	-	0.0050 U	0.0050 U	0.005 U	0.005 U	0.005 U	0.00
Cadmium (dissolved)	mg/L	-	-		-	-	-	
Chromium	mg/L	-	0.0011 J	0.0100 U	0.0042 J	0.01 U	0.01 U	0.0
Chromium Total (dissolved)	mg/L	-	-		-	-	-	
Copper	mg/L	-	0.0045 J	0.0100 U	0.0265	0.025 U	0.025 U	0.00
Copper (dissolved)	mg/L	-	-		-	-	-	
Iron	mg/L	-	0.100 U	0.0631 J	2.04	2.3 J	0.181 J	0.0
Iron (dissolved)	mg/L	-	-	-	-	-	-	
Lead	mg/L	-	0.0100 U	0.0024 J	0.0042 J	0.005 U	0.005 U	0.0
Lead (dissolved)	mg/L	-	-		-	-	-	
Manganese	mg/L	-	0.0455	0.0239	0.496	0.0373 J	0.0086 J	0.0
Manganese (dissolved)	mg/L	-	-	-	-	-	-	
Selenium	mg/L	-	0.0200 U	0.0200 U	0.01 U	0.01 U	0.01 U	0.0
Selenium (dissolved)	mg/L	-	-		-			
Dissolved Gas								
Ethane	ug/L	-	9 U	9 U	6.2 U	6.2 U	6.2 U	9
Ethene	ug/L	-	7 U	7 U	1.6 J	0.91 J	6.2 U	7
Methane	ug/L	-	33	33	37.6	18.5	11.5	3
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	-	365	275	271	98.3 J	45.3 J	1
Ammonia	mg/L	-	0.067 J	0.200 U	0.10 U	0.10 U	0.10 U	0.0
Chloride	mg/L	-	15	12	-	9.3	9.0	1.
Ferrous iron	mg/L	-	-		9.0	-	-	
Nitrate (as N)	mg/L	-	2.5 U	1.2 U	0.25 U	0.25 U	0.25 U	0.2
Orthophosphate	mg/L	-	0.0151 U	0.0172	0.28	0.25 U	0.25 U	0.0
Sulfate	mg/L	-	22	13	7.8	11	11	
Total organic carbon (TOC)	mg/L	-	25.6	23.2	26.3	2.5	2.5	1
Field Parameters								
pH	S.U	11.69	11.6	11.86	10.89	6.69	6.69	7
DO	mg/L	2.73	3.26	0.47	0.0	6.44	6.44	0
ORP	mv	17	-5	-203	-163	207	207	1

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts
[1] Monitoring well MW-10A was not accessible for sampling during this event

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock Units
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-7A	MW-7A	MW-10A	MW-10A [1]	MW-10A	MW-10A
Sample ID:		GW-013926-102815-SAG-011	GW-013926-041316-SAG-108	GW-020911-DJB-209	NOT SAMPLED	GW-042612-AWY-010	GW-042612-AWY-011
Sample Date:		10/28/2015	4/13/2016	2/9/2011	10/11/11	4/26/2012	4/26/2012
							Duplicate
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0	5.0 U		5.0 U	5.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	5.0 U		5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	5.0 U		5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
1,4-Dioxane	ug/L	140 J	150 U	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	50 U		50 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U		10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U		10 U	10 U
Acetone	ug/L	100	24	50 U		50 U	50 U
Benzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Bromoform	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U		5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	5.0 U		5.0 U	5.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Chloroethane	ug/L	1.0 U	1.0 U	10 U		10 U	10 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	10 U		10 U	10 U
cis-1,2-Dichloroethene	ug/L	1.0 U	6.2	3.5 J		1.2 J	1.2 J
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	5.0 U		5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	10 U		10 U	10 U
Ethylbenzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	5.0 U		5.0 U	5.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	5.0 U		5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U		5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	5.0 U		R	5.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Toluene	ug/L	1.0 U	1.0 U	5.4		5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	5.0 U		5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	5.0 U		5.0 U	5.0 U
Trichloroethene	ug/L	1.0 U	1.7	5.0 U		0.66 J	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	10 U		10 U	10 U
Vinyl chloride	ug/L	1.0 U	1.3	2.0 U		2.0 U	2.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U	5.0 U		5.0 U	5.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock Units
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-7A	MW-7A	MW-10A	MW-10A[1]	MW-10A	MW-10A
	Sample ID:	GW-013926-102815-SAG-011	GW-013926-041316-SAG-108	GW-020911-DJB-209	NOT SAMPLED	GW-042612-AWY-010	GW-042612-AWY-011
	Sample Date:	10/28/2015	4/13/2016	2/9/2011	10/11/11	4/26/2012	4/26/2012 Duplicate
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.005 U	0.000882 J	50 U		0.0039 J	0.0500 U
Arsenic (dissolved)	mg/L	--	-	50 U			
Barium	mg/L	0.0739	0.0664	17.1 J		0.0395	0.0366
Barium (dissolved)	mg/L	--	-	11.6 J			
Cadmium	mg/L	0.000178 J	0.000474 J	5 U		0.0012 J	0.0050 U
Cadmium (dissolved)	mg/L	--	-	5 U			
Chromium	mg/L	0.000445 J	0.005 U	10 U		0.0031 J	0.0007 J
Chromium Total (dissolved)	mg/L	--	-	10 U			
Copper	mg/L	0.00247	0.000683 J	10 U		0.0090 J	0.0076 J
Copper (dissolved)	mg/L	--	-	10 U			
Iron	mg/L	0.233	0.231	103		1.29	1.20
Iron (dissolved)	mg/L	--	--	100 U		-	-
Lead	mg/L	0.000678 J	0.000423 J	9.6 J		0.0839	0.0788
Lead (dissolved)	mg/L	--	-	10 U			
Manganese	mg/L	0.11 J	--	118		0.677	0.623
Manganese (dissolved)	mg/L	--	-	2.6 J		-	-
Selenium	mg/L	0.005 U	0.005 U	20 U		0.0125 J	0.0200 U
Selenium (dissolved)	mg/L	--		20 U			
Dissolved Gas							
Ethane	ug/L	9.0 U	9.0 U	9 U		9 U	9 U
Ethene	ug/L	5.5 J	5.4 J	7 U		7 U	7 U
Methane	ug/L	1700	1800	4 U		2 J	3 J
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	152	138	73700		76.6	80.1
Ammonia	mg/L	2.60	1.57	--		0.200 U	0.200 U
Chloride	mg/L	7.8	7.7	1400		1.5	1.4
Ferrous iron	mg/L	--	-	100 UJ			
Nitrate (as N)	mg/L	0.25 U	0.031 J	99 J		0.35	0.35
Orthophosphate	mg/L	0.320	0.159	--		0.0414	0.0438
Sulfate	mg/L	4.3	5.9	10000		9.6	9.6
Total organic carbon (TOC)	mg/L	4.56	4.77	577 J		0.814 J	1.09
Field Parameters							
pH	S.U	7.54	7.10	7.25		7.33	7.33
DO	mg/L	0	0.0	5.36		9.85	9.85
ORP	mv	-267	-80	215		92	92

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller rep
[1] Monitoring well MW-10A was not accessible for sampling during

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock Units
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-10A	MW-10A	MW-10A	MW-10A	MW-10A
Sample ID:		GW-013926-101614-DJB-109	GW-013926-031815-DJB-107	GW-013926-102915-DJB-109	GW-013926-102915-DJB-110	GW-013926-041416-SAG-111
Sample Date:		10/16/2014	3/18/2015	10/29/2015	10/29/2015	4/14/2016
					Duplicate	
Parameters	***Units***					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.021 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.6	2.6	4.0	4.1	2.6
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	7.0	7.8	27	33	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.6	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock Units
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A
	Sample ID:	GW-013926-101614-DJB-109	GW-013926-031815-DJB-107	GW-013926-102915-DJB-109	GW-013926-102915-DJB-110	GW-013926-041416-SAG-111
	Sample Date:	10/16/2014	3/18/2015	10/29/2015	10/29/2015	4/14/2016
					Duplicate	
Parameters	***Units***					
Metals						
Arsenic	mg/L	0.00107 J	0.00114 J	0.00125 J	0.00129 J	0.000895 J
Arsenic (dissolved)	mg/L	-	-	--	--	-
Barium	mg/L	0.0143	0.0153	0.0211	0.0221	0.0221
Barium (dissolved)	mg/L	-	-	--	--	-
Cadmium	mg/L	0.0007 U	0.0007 U	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	-	-	--	--	-
Chromium	mg/L	0.005 U	0.00025 J	0.000362 J	0.000306 J	0.005 U
Chromium Total (dissolved)	mg/L	-	-	--	--	-
Copper	mg/L	0.0023	0.00307	0.00254	0.00258	0.000906 J
Copper (dissolved)	mg/L	-	-	--	--	-
Iron	mg/L	0.0255 J	0.0931 J	0.119	0.077 J	0.0798 J
Iron (dissolved)	mg/L	-	--	--	--	--
Lead	mg/L	0.00339	0.0047	0.00446	0.00437	0.00568
Lead (dissolved)	mg/L	-	-	--	--	-
Manganese	mg/L	0.0422	0.0636	0.106 J	0.106 J	--
Manganese (dissolved)	mg/L	-	--	--	--	-
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L			--	--	
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	41	46	42	43
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	74.8	71.0	71.0	70.0	74.0
Ammonia	mg/L	0.019 J	0.020 U	0.023	0.015 J	0.083
Chloride	mg/L	1.3	1.3	1.7	1.2	4.4
Ferrous iron	mg/L	-	-	--	--	-
Nitrate (as N)	mg/L	0.25 U	0.13 J	0.25 U	0.25 U	0.058 J
Orthophosphate	mg/L	0.0410	0.0283	0.0261 U	0.0267 U	0.0501
Sulfate	mg/L	12	11	10	11	9.1
Total organic carbon (TOC)	mg/L	1.92	0.310 J	1.00 U	1.00 U	1.72
Field Parameters						
pH	S.U	7.94	7.62	7.91	-	7.22
DO	mg/L	0.40	1.92	0.0	-	2.99
ORP	mv	131	66	137	-	164

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller rep
[1] Monitoring well MW-10A was not accessible for sampling during

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock Units
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	GV
Sample ID:		GW-041813-DJB-205	GW-013926-102413-SAG-009	GW-013926-042414-DJB-008	GW-013926-101514-DJB-107	GW-013926-031815-SAG-011	GW-013926-102815-DJB-105	
Sample Date:		4/18/2013	10/24/2013	4/24/2014	10/15/2014	3/18/2015	10/28/2015	
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	1.1 J	0.96 J	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	7.9 J	8.2	5.7	6.9	5.8	7.0	
1,1,2-Trichloroethane	ug/L	0.61 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	16.4	15	7.5	7.6	3.8	10	
1,1-Dichloroethene	ug/L	12.6	12	5.0	4.6	2.4	8.0	
1,2,4-Trichlorobenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.021 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	1.1 J	0.96 J	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	0.54 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	120 J	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10.0 U	10 U	10 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10.0 U	10 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10.0 U	10 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	25.0 U	20 U	20 U	20 U	20 U	20 U	
Benzene	ug/L	2.1 J	0.64 J	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.4 J	5.1	2.8	2.8	1.9	2.9	
Chloromethane (Methyl chloride)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	243	250	170	150	110	180	
cis-1,3-Dichloropropene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	2.7 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	54.4	39	21	44	27	39	
Toluene	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	0.91 J	0.94 J	2.0 U	2.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	271	270	200	210	180	220	
Trichlorofluoromethane (CFC-11)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	5.5 J	4.8 J	5.0 U	2.4 J	5.0 U	3.9 J	
Vinyl chloride	ug/L	3.3 J	3.1	2.0	1.5	1.0 U	1.8	
Xylenes (total)	ug/L	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock Units
Aqua-Tech Environmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	
Sample ID:		GW-041813-DJB-205	GW-013926-102413-SAG-009	GW-013926-042414-DJB-008	GW-013926-101514-DJB-107	GW-013926-031815-SAG-011	GW-013926-102815-DJB-105	GV
Sample Date:		4/18/2013	10/24/2013	4/24/2014	10/15/2014	3/18/2015	10/28/2015	
Parameters	***Units***							
Metals								
Arsenic	mg/L	0.01 U	0.000254 J	0.005 U	0.005 U	0.000228 J	0.0011 J	
Arsenic (dissolved)	mg/L	-	-	-	-	-	--	
Barium	mg/L	0.09 J	0.076	0.0767	0.0737	0.0807	0.084	
Barium (dissolved)	mg/L	-	-	-	-	-	--	
Cadmium	mg/L	0.005 U	0.0007 U	0.0007 U	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	-	-	-	-	-	--	
Chromium	mg/L	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U	0.000423 J	
Chromium Total (dissolved)	mg/L	-	-	-	-	-	--	
Copper	mg/L	0.025 U	0.000535 J	0.002 U	0.005 U	0.000838 J	0.000907 J	
Copper (dissolved)	mg/L	-	-	-	-	-	--	
Iron	mg/L	0.1 U	0.0132 J	0.1 U	0.1 U	0.1 U	0.1 U	
Iron (dissolved)	mg/L	-	-	-	-	--	--	
Lead	mg/L	0.005 U	0.000191 J	0.001 U	0.001 U	0.001 U	0.000715 J	
Lead (dissolved)	mg/L	-	-	-	-	-	--	
Manganese	mg/L	0.0431	0.0428	0.0557	0.0474	0.0648	0.0331 J	
Manganese (dissolved)	mg/L	-	-	-	-	--	--	
Selenium	mg/L	0.01 U	0.005 U	0.005 U	0.005 UJ	0.005 U	0.00181 J	
Selenium (dissolved)	mg/L		-	-			--	
Dissolved Gas								
Ethane	ug/L	6.2 U	9 U	9 U	9 U	9 U	9.0 U	
Ethene	ug/L	6.2 U	7 U	7 U	7 U	7 U	7.0 U	
Methane	ug/L	12.1	15	4 U	4 U	2 J	27	
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	35.7	37.0	28.1	34.3	35.0	30.0	
Ammonia	mg/L	0.10 UJ	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	
Chloride	mg/L	16	13	13	19	11	13	
Ferrous iron	mg/L	-	-	-	-	-	--	
Nitrate (as N)	mg/L	0.80	0.55	0.76	0.76	0.83	0.57	
Orthophosphate	mg/L	0.32	0.191	0.170	0.152	0.0942	0.172	
Sulfate	mg/L	1.0 U	0.71 J	1.0 U	1.5	1.0 U	0.90 J	
Total organic carbon (TOC)	mg/L	3.0	1.53	2.15	0.877 J	1.00 U	1.00 U	
Field Parameters								
pH	S.U	6.33	5.87	5.90	6.02	5.53	5.12	
DO	mg/L	0.0	2.00	6.13	2.00	3.11	1.09	
ORP	mv	438	209	188	185	188	476	

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller rep
[1] Monitoring well MW-10A was not accessible for sampling during

Table 4C

Analytical Results Summary
Monitored Natural Attenuation in Bedrock Units
Aquat-Tech Enviornmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-41	MW-41	MW-41	MW-41	MW-41	MW-41
	Sample ID:	GW-021111-DJB-212	GW-101211-DJB-103	GW-042512-AWY-009	GW-102412-DJB-002	GW-041813-DJB-204	GW-013926-102413-DJB-104
	Sample Date:	2/11/2011	10/12/2011	4/25/2012	10/24/2012	4/18/2013	10/24/2013
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	3.5 J	5.0 U	2.5 J	10.0 U	1.5 J	1.8
1,1,2,2-Tetrachloroethane	ug/L	5.2	3.1 J	4.2 J	3.0 J	3.9 J	3.6
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.8 J	5.0 U	1.5 J	0.78 J	1.3 J	1.4
1,1-Dichloroethene	ug/L	6.1	5.0 U	5.7	1.2 J	4.2 J	4.7
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.9	2.6 J	4.1 J	3.4 J	4.3 J	5.0
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10.0 U	10.0 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U
Acetone	ug/L	50 U	50 U	50 U	25.0 U	25.0 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.9	1.4 J	4.5 J	2.3 J	3.8 J	3.8
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	37	9.4	30	18.2	34.6	38
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U
Tetrachloroethene	ug/L	20	4.4 J	26	5.6 J	23.6	38
Toluene	ug/L	1.0 J	12	5.0 U	10.0 U	10.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U

Table 4C

Analytical Results Summary
Monitored Natural Attenuation in Bedrock Units
Aquat-Tech Enviornmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-41	MW-41	MW-41	MW-41	MW-41	MW-41
	Sample ID:	GW-021111-DJB-212	GW-101211-DJB-103	GW-042512-AWY-009	GW-102412-DJB-002	GW-041813-DJB-204	GW-013926-102413-DJB-104
	Sample Date:	2/11/2011	10/12/2011	4/25/2012	10/24/2012	4/18/2013	10/24/2013
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0038 J	0.01 U	0.000348 J
Arsenic (dissolved)	mg/L	0.0500 U	-		-	-	-
Barium	mg/L	0.243	0.363	0.301	0.297	0.301	0.19
Barium (dissolved)	mg/L	0.233	-		-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.005 U	0.005 U	0.000124 J
Cadmium (dissolved)	mg/L	0.0050 U	-		-	-	-
Chromium	mg/L	0.0011 J	0.0165	0.0074 J	0.008 J	0.0051 J	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-		-	-	-
Copper	mg/L	0.0014 J	0.0169	0.0048 J	0.0088 J	0.0052 J	0.000315 J
Copper (dissolved)	mg/L	0.0100 U	-		-	-	-
Iron	mg/L	0.538	11.4	4.16	5.67	3.73	0.0763 J
Iron (dissolved)	mg/L	0.100 U	-	-	-	-	-
Lead	mg/L	0.0100 U	0.0034 J	0.0021 J	0.005 U	0.005 U	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-		-	-	-
Manganese	mg/L	0.147	0.191	0.0969	0.101	0.086	0.0381
Manganese (dissolved)	mg/L	0.141	-	-	-	-	-
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-		-
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.2 U	9 U
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.2 U	7 U
Methane	ug/L	4 U	4 U	4 U	6.6 U	6.6 U	4 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	10.0 U	10.0 U	10.0 U	1.5 J	4.2 J	7.0 J
Ammonia	mg/L	-	0.025 J	0.200 U	0.20 U	0.10 UJ	0.020 U
Chloride	mg/L	22	15	15	-	14	14
Ferrous iron	mg/L	0.100 U	-		14	-	-
Nitrate (as N)	mg/L	3.2	2.6	2.5	2.7	2.9	2.2
Orthophosphate	mg/L	-	0.0976	0.172	0.58	0.35	0.174
Sulfate	mg/L	15	15	16	16	18	17
Total organic carbon (TOC)	mg/L	2.92 U	4.36	2.19	1.0 U	2.0	0.581 J
Field Parameters							
pH	S.U	4.9	5.8	4.47	5.97	5.37	4.16
DO	mg/L	6.11	8.6	6.48	8.87	3.04	4.76
ORP	mv	320	272	249	239	301	359

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Table 4C

Analytical Results Summary
Monitored Natural Attenuation in Bedrock Units
Aquat-Tech Enviornmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-41	MW-41	MW-41	MW-4A	MW-4A
Sample ID:		GW-013926-031715-DJB-104	GW-013926-102715-DJB-101	GW-013926-041216-SAG-104	GW-020911-DJB-207	GW-101211-DJB-106
Sample Date:		3/17/2015	10/27/2015	4/12/2016	2/9/2011	10/12/2011
		Duplicate				
Parameters	***Units***					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	2.2	2.0 U	1.4 J	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.4	1.4	1.8	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,4-Dioxane	ug/L	-	150 U	150 U	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	50 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	50 U	50 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U
Chloroform (Trichloromethane)	ug/L	2.1	1.6	1.8	5.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	4.0	2.5	2.5	3.3 J	6.1
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	20	15	5.7	5.0 U	2.0 J
Toluene	ug/L	1.0 U	1.0 U	1.0 U	9.1	8.4
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U

Table 4C

Analytical Results Summary
Monitored Natural Attenuation in Bedrock Units
Aquat-Tech Enviornmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-41	MW-41	MW-41	MW-4A	MW-4A
	Sample ID:	GW-013926-031715-DJB-104	GW-013926-102715-DJB-101	GW-013926-041216-SAG-104	GW-020911-DJB-207	GW-101211-DJB-106
	Sample Date:	3/17/2015	10/27/2015	4/12/2016	2/9/2011	10/12/2011
		Duplicate				
Parameters	***Units***					
Metals						
Arsenic	mg/L	0.000382 J	0.000312 J	0.000424 J	0.0500 U	0.0500 U
Arsenic (dissolved)	mg/L	-	--	-	0.0500 U	-
Barium	mg/L	0.187	0.19	0.176	0.0180 J	0.0154 J
Barium (dissolved)	mg/L	-	--	-	0.0162 J	-
Cadmium	mg/L	0.0007 U	0.0007 U	0.000236 J	0.0050 U	0.0050 U
Cadmium (dissolved)	mg/L	-	--	-	0.0050 U	-
Chromium	mg/L	0.00056 J	0.00117 J	0.00143 J	0.0100 U	0.0100 U
Chromium Total (dissolved)	mg/L	-	--	-	0.0100 U	-
Copper	mg/L	0.000986 J	0.000929 J	0.00104 J	0.0015 J	0.0100 U
Copper (dissolved)	mg/L	-	--	-	0.0146 J	-
Iron	mg/L	0.048 J	0.174	0.508	0.330	0.319 U
Iron (dissolved)	mg/L	--	--	--	0.0562 J	-
Lead	mg/L	0.001 U	0.001 U	0.000799 J	0.108	0.0146
Lead (dissolved)	mg/L	-	--	-	0.0195	-
Manganese	mg/L	0.0284	0.0321	--	0.0073 J	0.0111 J
Manganese (dissolved)	mg/L	--	--	-	0.0055 J	-
Selenium	mg/L	0.005 U	0.000552 J	0.000406 J	0.0200 U	0.0200 U
Selenium (dissolved)	mg/L		--		0.0200 U	-
Dissolved Gas						
Ethane	ug/L	9 U	9.0 U	9.0 U	9 U	9 U
Ethene	ug/L	7 U	7.0 U	7.0 U	7 U	7 U
Methane	ug/L	4 U	1.6 J	4.0 U	4 U	530
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	7.00	5.00	5.00	36.8	32.9
Ammonia	mg/L	0.020 U	0.020 UJ	0.020 U	-	0.302
Chloride	mg/L	12	13	12 J	1.5	1.3
Ferrous iron	mg/L	-	--	-	0.100 UJ	-
Nitrate (as N)	mg/L	1.5	1.4	1.2	0.25 U	0.25 U
Orthophosphate	mg/L	0.206	0.189	0.182	-	0.0537
Sulfate	mg/L	19	20	17	9.3	7.0
Total organic carbon (TOC)	mg/L	1.00 U	0.352 J	10.7	1.00 U	2.49
Field Parameters						
pH	S.U	-	-	4.55	6.12	7.02
DO	mg/L	-	-	1.60	0.14	0.61
ORP	mv	-	-	402	203	-95

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Table 4C

Analytical Results Summary
Monitored Natural Attenuation in Bedrock Units
Aquat-Tech Enviornmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-4A	MW-4A	MW-4A	MW-4A	MW-4.
Sample ID:		GW-013926-042314-DJB-002	GW-013926-101614-SAG-011	GW-013926-031815-DJB-106	GW-013926-102915-DJB-107	GW-013926-0414
Sample Date:		4/23/2014	10/16/2014	3/18/2015	10/29/2015	4/14/20
Parameters	***Units***					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.6	1.0 U	2.5	1.4	1.3
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 I
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	150 U	150 L
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	17	9.6	16	14	11
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	8.0	5.9	7.6	7.7	8.4
Toluene	ug/L	2.5	1.0 U	2.0	13	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

Table 4C

Analytical Results Summary
Monitored Natural Attenuation in Bedrock Units
Aquat-Tech Enviornmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-4A	MW-4A	MW-4A	MW-4A	MW-4.
	Sample ID:	GW-013926-042314-DJB-002	GW-013926-101614-SAG-011	GW-013926-031815-DJB-106	GW-013926-102915-DJB-107	GW-013926-0414
	Sample Date:	4/23/2014	10/16/2014	3/18/2015	10/29/2015	4/14/20
Parameters	***Units***					
Metals						
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.0002
Arsenic (dissolved)	mg/L	-	-	-	--	-
Barium	mg/L	0.0176	0.0168	0.183	0.0168	0.016
Barium (dissolved)	mg/L	-	-	-	--	-
Cadmium	mg/L	0.0007 U	0.0007 U	0.000132 J	0.0007 U	0.0007
Cadmium (dissolved)	mg/L	-	-	-	--	-
Chromium	mg/L	0.005 U	0.005 U	0.00038 J	0.00115 J	0.005
Chromium Total (dissolved)	mg/L	-	-	-	--	-
Copper	mg/L	0.002 U	0.00294	0.00341	0.00285	0.002
Copper (dissolved)	mg/L	-	-	-	--	-
Iron	mg/L	0.1 U	0.0443 J	0.0354 J	0.0738 J	0.1 U
Iron (dissolved)	mg/L	-	-	--	--	--
Lead	mg/L	0.00151	0.00363	0.001 U	0.00107	0.0010
Lead (dissolved)	mg/L	-	-	-	--	-
Manganese	mg/L	0.005 U	0.00264 J	2.3	0.00415 J	--
Manganese (dissolved)	mg/L	-	-	--	--	-
Selenium	mg/L	0.005 U	0.00085 J	0.005 U	0.000908 J	0.00066
Selenium (dissolved)	mg/L	-			--	
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7.0 U	7.0 U
Methane	ug/L	39	11	3 J	9.7	4.0 U
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	36.3	40.3	36.0	30.0	33.0
Ammonia	mg/L	0.021	0.100 U	0.020 U	0.014 J	0.020
Chloride	mg/L	1.2	1.2	5.6	1.6	1.8
Ferrous iron	mg/L	-	-	-	--	-
Nitrate (as N)	mg/L	0.25 U	0.25 U	8.2	0.25 U	0.11
Orthophosphate	mg/L	0.0405	0.0404	0.0290	0.0197 U	0.015
Sulfate	mg/L	9.4	13	13	7.9	7.3
Total organic carbon (TOC)	mg/L	1.00 U	2.00	1.00 U	1.00 U	1.64
Field Parameters						
pH	S.U	7.10	6.42	5.38	6.83	6.65
DO	mg/L	1.77	2.69	.000	0.0	6.36
ORP	mv	44	194	194	188	252

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Table 4C

Analytical Results Summary
Monitored Natural Attenuation in Bedrock Units
Aquat-Tech Enviornmental, Inc. Site - Greer, South Carolina

Sample Location:		MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A
Sample ID:		GW-102912-DJB-008	GW-041713-EAH-104	GW-013926-102813-DJB-110	GW-013926-050114-DWH-108	GW-013926-101514-SAG-009	GW-013926-031815-
Sample Date:		10/29/2012	4/17/2013	10/28/2013	5/1/2014	10/15/2014	3/18/2015
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	24.3	15.1	7.2	6.0	8.8	8.2
1,1,2-Trichloroethane	ug/L	1.0 J	0.85 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	3.3 J	2.6 J	1.6	1.0 U	1.0	0.87 J
1,1-Dichloroethene	ug/L	1.2 J	0.87 J	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.021 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	0.35 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U
Acetone	ug/L	33.0 U	25.0 U	20 U	20 U	20 U	20 U
Benzene	ug/L	0.52 J	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	0.26 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.1 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	0.40 J	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	148	142	84	48	55	40
cis-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.8 J	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	11.4	7.4 J	6.2	18	18	7.9
Toluene	ug/L	0.26 J	0.51 J	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.1 J	1.1 J	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U

Table 4C

Analytical Results Summary
Monitored Natural Attenuation in Bedrock Units
Aquat-Tech Enviornmental, Inc. Site - Greer, South Carolina

	Sample Location:	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A
	Sample ID:	GW-102912-DJB-008	GW-041713-EAH-104	GW-013926-102813-DJB-110	GW-013926-050114-DWH-108	GW-013926-101514-SAG-009	GW-013926-031815-
	Sample Date:	10/29/2012	4/17/2013	10/28/2013	5/1/2014	10/15/2014	3/18/2015
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.0046 J	0.0038 J	0.00173 J	0.005 U	0.000659 J	0.000629 J
Arsenic (dissolved)	mg/L	-	-	-	-	-	-
Barium	mg/L	0.141 J	0.15 J	0.131	0.131	0.125	0.125
Barium (dissolved)	mg/L	-	-	-	-	-	-
Cadmium	mg/L	0.005 U	0.005 U	0.000117 J	0.0007 U	0.000704	0.000525 J
Cadmium (dissolved)	mg/L	-	-	-	-	-	-
Chromium	mg/L	0.0021 J	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-
Copper	mg/L	0.025 U	0.025 U	0.000366 J	0.002 U	0.00229	0.00241
Copper (dissolved)	mg/L	-	-	-	-	-	-
Iron	mg/L	6.82	7.03	3.48	8.18	0.656	0.549
Iron (dissolved)	mg/L	-	-	-	-	-	--
Lead	mg/L	0.005 U	0.005 U	0.000183 J	0.001 U	0.00178	0.001 U
Lead (dissolved)	mg/L	-	-	-	-	-	-
Manganese	mg/L	3.85	4.12	3.72	3.56	3.61	3.11
Manganese (dissolved)	mg/L	-	-	-	-	-	--
Selenium	mg/L	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	-		-	-		
Dissolved Gas							
Ethane	ug/L	6.2 U	6.2 U	9 U	9 U	9 U	9 U
Ethene	ug/L	6.2 U	6.2 U	7 U	7 U	7 U	7 U
Methane	ug/L	120	64.2	21	10	5	10
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	41.4	41.3	34.1	24.4	31.6	24.0
Ammonia	mg/L	0.27	0.12	0.189	0.182	0.041	0.074
Chloride	mg/L	-	12	15	15	15	13
Ferrous iron	mg/L	13.0889	-	-	-	-	-
Nitrate (as N)	mg/L	0.021 J	0.25 UJ	0.033 J	0.25 U	0.18 J	0.17 J
Orthophosphate	mg/L	0.25 U	0.25 U	0.00698 J	0.0100 U	0.0170	0.0198
Sulfate	mg/L	7.48259	7.8	7.5	6.8	5.8	6.4
Total organic carbon (TOC)	mg/L	1.1	4.1	1.00 U	1.81	1.00	1.00 U
Field Parameters							
pH	S.U	6.05	4.78	5.37	5.50	5.88	5.70
DO	mg/L	1.02	6.63	0.0	0.50	1.50	0.0
ORP	mv	40	200	204	101	226	161

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Attachments

Attachment A

Well Purging Forms – April 2016 Monitoring Event

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 13, 2016
Personnel: Madison Bodiford

Monitoring Well Data:

Well ID: **MW-3**
Measured Well Depth (ft): 50.09
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.79

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 45
Initial Depth to Water (ft): 38.90
Total Volume Purged (gal): 0.40

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
15:35	50	38.99	0.09	18.78	0.154	72.8	4.18	5.41	26
15:40	50	39.00	0.10	17.97	0.153	56.5	3.44	5.37	27
15:45	50	39.00	0.10	17.84	0.159	44.4	3.21	5.39	27
15:50	50	39.03	0.13	17.73	0.162	37.5	3.08	5.39	27
15:55	50	39.01	0.11	17.66	0.165	32.0	3.00	5.39	27
16:00	50	39.01	0.11	17.68	0.168	26.6	2.94	5.40	27
16:05	50	39.00	0.10	17.67	0.169	29.4	2.92	5.39	27
	Sample Time		16:15						
	Sample ID		GW-013926-041316-MRB-010						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

Notes:

(1) The pump intake will be placed at mid-point of the well screen

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 14, 2016

Personnel: Madison Bodiford, Steven Grac

Monitoring Well Data:

Well ID: **MW-4**

Measured Well Depth (ft): 22.63

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 1.28

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic

Depth to Pump Intake (ft)[1]: 17

Initial Depth to Water (ft): 14.64

Total Volume Purged (gal): 0.55

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
9:25	70	14.69	0.05	13.28	0.181	0.00	5.79	5.44	28
9:30	70	14.69	0.05	13.40	0.183	0.00	4.95	5.36	29
9:35	70	14.69	0.05	13.54	0.183	0.00	4.69	5.36	29
9:40	70	14.69	0.05	13.63	0.184	0.00	4.59	5.36	29
9:45	70	14.69	0.05	13.74	0.185	0.00	4.40	5.36	29
9:50	70	14.69	0.05	13.87	0.186	0.00	4.24	5.36	29
9:55	70	14.69	0.05	13.98	0.187	0.00	4.10	5.36	29
	Sample Time		10:00						
	Sample ID		**GW-013926-041416-SAG-110**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 14, 2016

Personnel: Madison Bodiford, Steven Grac

Monitoring Well Data:

Well ID: **MW-4A**

Measured Well Depth (ft): 67.35

Screen Length (ft): 10

Well Diameter, D (in): 4

Total Volume in Well (gal): 36.65

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic

Depth to Pump Intake (ft)[1]: 55

Initial Depth to Water (ft): 11.82

Total Volume Purged (gal): 0.65

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
8:20	70	11.86	0.04	10.18	0.088	17.50	14.96	6.57	26
8:25	70	11.86	0.04	10.88	0.086	1.63	10.03	6.65	25
8:30	70	11.86	0.04	13.32	0.084	3.51	8.05	6.66	25
8:35	70	11.86	0.04	13.60	0.083	1.15	7.53	6.66	25
8:40	70	11.86	0.04	13.81	0.082	0.00	7.19	6.64	25
8:45	70	11.86	0.04	13.95	0.081	0.00	6.83	6.63	25
8:50	70	11.86	0.04	14.04	0.081	0.00	6.53	6.64	25
8:55	70	11.86	0.04	14.04	0.081	0.00	6.36	6.65	25
	Sample Time		9:00						
	Sample ID		GW-013926-041416-SAG-109						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

MULTI VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 13, 2016

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-7A**

Measured Well Depth (ft): 71.24

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 7.90

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 60

Initial Depth to Water (ft): 21.88

Total Volume Purged (gal): 8

Volume	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
0.25	-	23.52	1.64	15.66	0.331	99.1	8.27	6.97	22
8.00	-	63.19	41.31	17.28	0.334	14.3	0.00	7.10	-8
DRY	-	-	-	-	-	-	-	-	-
	Sample Time		16:45						
	Sample ID		**GW-013926-041316-SAG-108**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

Notes:

(1) The pump intake will be placed at upper part of the well column.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 14, 2016

Personnel: Madison Bodiford, Steven Grac

Monitoring Well Data:

Well ID: **MW-10A**

Measured Well Depth (ft): 55.1

Screen Length (ft): 10

Well Diameter, D (in): 4

Total Volume in Well (gal): 30.49

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic

Depth to Pump Intake (ft)[1]: 49

Initial Depth to Water (ft): 8.90

Total Volume Purged (gal): 0.55

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature ° C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
10:30	70	8.92	0.02	15.04	0.151	0.00	10.73	7.21	18
10:35	70	8.93	0.03	15.17	0.157	0.00	3.66	7.25	18
10:40	70	8.93	0.03	15.31	0.157	0.00	3.34	7.27	18
10:45	70	8.93	0.03	15.44	0.157	0.00	3.20	7.28	17
10:50	70	8.93	0.03	15.61	0.157	0.00	3.09	7.27	17
10:55	70	8.93	0.03	15.76	0.157	0.00	3.04	7.23	16
11:00	70	8.93	0.03	15.88	0.156	0.00	2.99	7.22	16
	Sample Time		11:10						
	Sample ID		**GW-013926-041416-SAG-111**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

Notes:

(1) The pump intake will be placed at mid-point of the well screen

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 13, 2016

Personnel: Madison Bodiford

Monitoring Well Data:

Well ID: **MW-11**

Measured Well Depth (ft): 51.92

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 2.92

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 46

Initial Depth to Water (ft): 33.70

Total Volume Purged (gal): 0.46

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
8:50	50	33.75	0.05	13.64	0.054	20.5	9.41	5.09	26
8:55	50	33.80	0.10	14.41	0.056	12.6	8.39	4.99	28
9:00	50	33.82	0.12	14.66	0.051	12.3	7.87	5.07	28
9:05	50	33.83	0.13	14.77	0.049	14.0	7.68	5.07	28
9:10	50	33.83	0.13	14.97	0.048	17.5	7.41	4.90	27
9:15	50	33.85	0.15	15.05	0.047	12.8	7.21	4.68	26
9:20	50	33.85	0.15	15.14	0.047	6.58	7.09	4.54	26
9:25	50	33.85	0.15	15.13	0.046	6.57	7.00	4.57	26
	Sample Time		9:30						
	Sample ID		GW-013926-041316-MRB-006						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 13, 2016
Personnel: Madison Bodiford

Monitoring Well Data:

Well ID: **MW-11A**
Measured Well Depth (ft): 132.8
Screen Length (ft): 10
Well Diameter, D (in): 4
Total Volume in Well (gal): 69.98

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 100
Initial Depth to Water (ft): 26.77
Total Volume Purged (gal): 0.55

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
13:55	60	26.80	0.03	16.11	0.095	6.09	15.42	5.61	25
14:00	60	26.80	0.03	16.02	0.101	0.20	6.41	5.63	25
14:05	60	26.80	0.03	16.05	0.101	0.89	5.50	5.57	25
14:10	60	26.80	0.03	16.03	0.101	0.00	4.87	5.63	25
14:15	60	26.80	0.03	16.02	0.101	0.00	4.52	5.59	25
14:20	60	26.80	0.03	15.99	0.101	0.00	4.27	5.62	25
14:25	60	26.80	0.03	16.46	0.100	0.00	3.95	5.60	25
14:30	60	26.80	0.03	16.98	0.099	0.00	3.67	5.58	25
	Sample Time		14:40						
	Sample ID		**GW-013926-041316-MRB-009**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 13, 2016

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-12**

Measured Well Depth (ft): 39.94

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 1.96

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 35

Initial Depth to Water (ft): 27.71

Total Volume Purged (gal): 0.59

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
13:40	50	27.71	0.00	19.77	0.103	502.0	2.53	5.62	26
13:45	50	27.72	0.01	19.29	0.104	293	0.00	4.87	31
13:50	50	27.72	0.01	19.05	0.103	176	0.00	4.70	34
13:55	50	27.72	0.01	18.94	0.104	139	0.00	4.66	35
14:00	50	27.72	0.01	18.90	0.104	97.7	0.00	4.65	36
14:05	50	27.72	0.01	18.88	0.104	81.5	0.00	4.65	36
14:10	50	27.72	0.01	18.90	0.104	65.0	0.00	4.65	36
14:15	50	27.72	0.01	18.88	0.103	58.6	0.00	4.64	37
14:20	50	27.72	0.01	18.90	0.103	58.8	0.00	4.64	37
14:25	50	27.72	0.01	18.87	0.103	56.5	0.00	4.64	37
	Sample Time		14:35						
	Sample ID		**GW-013926-041316-SAG-107**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 12, 2016

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-13**

Measured Well Depth (ft): 92

Screen Length (ft): 10

Well Diameter, D (in): 4

Total Volume in Well (gal): 5.62

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 77

Initial Depth to Water (ft): 56.87

Total Volume Purged (gal): 0.79

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
13:35	75	56.85	-0.02	20.41	0.069	25.1	3.03	5.74	31
13:40	75	56.86	-0.01	20.16	0.081	32.4	2.40	5.05	33
13:45	75	56.86	-0.01	20.03	0.077	23.1	1.03	4.97	33
13:50	75	56.86	-0.01	20.03	0.076	19.1	0.54	4.94	34
13:55	75	56.86	-0.01	20.18	0.076	11.6	0.29	4.96	34
14:00	75	56.86	-0.01	20.44	0.076	7.25	0.22	4.98	34
14:05	75	56.86	-0.01	20.59	0.076	7.21	0.28	4.98	34
14:10	75	56.86	-0.01	20.74	0.075	8.22	0.24	4.98	35
14:15	75	56.86	-0.01	20.91	0.074	4.99	0.24	4.97	35
	Sample Time		14:30						
	Sample ID		**GW-013926-041216-SAG-103**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 13, 2016

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-14**

Measured Well Depth (ft): 54.87

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 2.39

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 50

Initial Depth to Water (ft): 39.92

Total Volume Purged (gal): 0.89

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
11:00	75	39.94	0.02	17.87	0.092	1000+	2.02	6.57	18
11:05	75	39.94	0.02	17.82	0.093	943	1.52	5.18	26
11:10	75	39.94	0.02	18.03	0.092	731	1.29	5.13	27
11:15	75	39.94	0.02	18.20	0.091	511	1.32	5.11	28
11:20	75	39.94	0.02	18.33	0.090	408	0.98	5.10	29
11:25	75	39.94	0.02	18.50	0.090	321	1.26	5.10	29
11:30	75	39.94	0.02	18.69	0.089	264	1.27	5.10	30
11:35	75	39.94	0.02	18.87	0.088	227	1.39	5.09	30
11:40	75	39.94	0.02	18.84	0.088	229	1.29	5.10	30
11:45	75	39.94	0.02	18.85	0.088	220	1.27	5.10	30
	Sample Time		11:55						
	Sample ID		**GW-013926-041316-SAG-106**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 12, 2016

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-27**

Measured Well Depth (ft): 52.25

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 3.58

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 47

Initial Depth to Water (ft): 29.89

Total Volume Purged (gal): 0.46

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
8:40	50	29.94	0.05	17.14	0.264	480	1.36	5.35	35
8:45	50	29.95	0.06	16.53	0.257	424	0.00	5.12	36
8:50	50	29.95	0.06	16.16	0.245	363	0.00	5.31	34
8:55	50	29.95	0.06	16.01	0.239	332	0.00	5.33	34
9:00	50	29.95	0.06	15.88	0.236	302	0.00	5.33	33
9:05	50	29.95	0.06	15.80	0.233	296	0.00	5.35	33
9:10	50	29.95	0.06	15.74	0.233	291	0.00	5.35	33
9:15	50	29.95	0.06	15.73	0.232	294	0.00	5.36	33
	Sample Time								
	Sample ID		GW-013926-041216-SAG-						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 12, 2016

Personnel: Madison Bodiford

Monitoring Well Data:

Well ID: **MW-28**

Measured Well Depth (ft): 52.36

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 3.56

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 47

Initial Depth to Water (ft): 30.12

Total Volume Purged (gal): 0.4

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
8:45	50	30.18	0.06	16.64	0.277	256	6.30	5.89	23
8:50	50	30.18	0.06	16.40	0.271	214	6.08	5.95	23
8:55	50	30.15	0.03	16.36	0.263	246	5.77	5.97	23
9:00	50	30.15	0.03	16.33	0.258	239	5.61	5.99	23
9:05	50	30.15	0.03	16.34	0.256	245	5.51	6.04	23
9:10	50	30.15	0.03	16.37	0.256	262	5.45	6.02	23
9:15	50	30.15	0.03	16.40	0.257	244	5.32	6.05	23
	Sample Time		9:25						
	Sample ID		**GW-013926-041216-MRB-001**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 12, 2016

Personnel: Madison Bodiford

Monitoring Well Data:

Well ID: **MW-32**

Measured Well Depth (ft): 52.77

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 3.51

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 47.5

Initial Depth to Water (ft): 30.82

Total Volume Purged (gal): 0.32

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
10:35	40	30.89	0.07	16.87	0.221	65.1	5.11	5.95	23
10:40	40	30.90	0.08	17.63	0.165	47.8	4.65	5.77	20
10:45	40	30.90	0.08	17.63	0.165	51.0	4.61	5.78	20
10:50	40	30.93	0.11	17.55	0.164	52.4	4.57	5.74	19
10:55	40	30.95	0.13	17.52	0.163	48.8	4.55	5.73	19
11:00	40	30.95	0.13	17.50	0.162	48.9	4.52	5.73	19
11:05	40	30.93	0.11	17.49	0.161	46.7	4.50	5.71	19
	Sample Time		11:15, 11:30						
	Sample ID		**GW-013926-041216-MRB-002, -003 (DUPLICATE)**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 13, 2016

Personnel: Madison Bodiford

Monitoring Well Data:

Well ID: **MW-35**

Measured Well Depth (ft): 54.6

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 3.12

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 49

Initial Depth to Water (ft): 35.10

Total Volume Purged (gal): 0.46

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
10:20	50	35.15	0.05	15.13	0.046	6.6	7.00	4.57	26
10:25	50	35.17	0.07	14.71	0.119	40.5	7.82	4.84	23
10:30	50	35.20	0.10	14.63	0.120	33.1	7.76	4.84	24
10:35	50	35.20	0.10	14.57	0.120	25.9	7.65	4.83	24
10:40	50	35.22	0.12	14.54	0.120	20.9	7.54	4.80	25
10:45	50	35.20	0.10	14.54	0.120	18.1	7.42	4.79	25
10:50	50	35.20	0.10	14.56	0.120	12.30	7.30	4.78	26
10:55	50	35.18	0.08	14.63	0.121	8.94	7.16	4.78	26
	Sample Time		11:05, 11:15						
	Sample ID		GW-013926-041316-MRB-007, -008 (DUPLICATE)						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

Notes:

(1) The pump intake will be placed at mid-point of the well screen

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 12, 2016

Personnel: Madison Bodiford

Monitoring Well Data:

Well ID: **MW-39**

Measured Well Depth (ft): 56.91

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 3.90

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 51

Initial Depth to Water (ft): 32.53

Total Volume Purged (gal): 0.4

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
13:40	50	32.55	0.02	24.18	0.102	144	4.37	4.93	25
13:45	50	32.53	0.00	23.56	0.104	219	4.33	4.78	26
13:50	50	32.53	0.00	22.99	0.105	239	4.33	4.66	29
13:55	50	32.53	0.00	23.03	0.105	239	4.31	4.66	29
14:00	50	32.52	-0.01	22.95	0.105	216	4.30	4.62	29
14:05	50	32.52	-0.01	23.35	0.108	166	4.12	4.58	30
14:10	50	32.52	-0.01	23.43	0.109	162	4.07	4.59	30
	Sample Time		14:20						
	Sample ID		**GW-013926-041216-MRB-004**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 12, 2016

Personnel: Madison Bodiford

Monitoring Well Data:

Well ID: **MW-40**

Measured Well Depth (ft): 56.84

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 3.11

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 51

Initial Depth to Water (ft): 37.43

Total Volume Purged (gal): 0.26

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
15:30	40	37.50	0.07	24.67	0.099	297	3.60	4.79	30
15:35	40	37.51	0.08	23.54	0.093	255	3.06	4.87	33
15:40	40	37.50	0.07	22.71	0.097	234	3.03	4.84	34
15:45	40	37.50	0.07	21.92	0.099	204	3.09	4.83	33
15:50	40	37.51	0.08	21.89	0.100	180	3.09	4.72	32
15:55	40	37.51	0.08	21.98	0.100	153	3.09	4.28	32
	Sample Time		16:10						
	Sample ID		**GW-013926-041216-MRB-005**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 12, 2016

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-41**

Measured Well Depth (ft): 93.53

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 3.68

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 85

Initial Depth to Water (ft): 70.53

Total Volume Purged (gal): 0.46

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
15:35	50	70.61	0.08	23.79	0.056	236	2.45	5.03	33
15:40	50	70.64	0.11	21.19	0.112	248	3.04	4.87	36
15:45	50	70.67	0.14	20.45	0.129	217	2.28	4.58	38
15:50	50	70.71	0.18	19.99	0.127	192	2.05	4.55	39
15:55	50	70.74	0.21	19.84	0.128	182	1.58	4.56	39
16:00	50	70.79	0.26	19.73	0.129	177	1.61	4.55	39
16:05	50	70.83	0.30	19.62	0.129	174	1.65	4.55	40
16:10	50	70.86	0.33	19.57	0.130	172	1.60	4.55	40
	Sample Time		16:20						
	Sample ID		GW-013926-041216-SAG-104						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 12, 2016

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-42**

Measured Well Depth (ft): 66.91

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 3.96

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 62

Initial Depth to Water (ft): 42.14

Total Volume Purged (gal): 0.59

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
10:10	50	42.17	0.03	16.57	0.138	178	0.00	5.29	24
10:15	50	42.18	0.04	16.59	0.150	158	0.00	5.27	22
10:20	50	42.18	0.04	16.63	0.153	130	0.00	5.25	22
10:25	50	42.18	0.04	16.67	0.154	121	0.00	5.26	22
10:30	50	42.18	0.04	16.71	0.152	104	0.00	5.28	26
10:35	50	42.18	0.04	16.84	0.152	85.4	0.00	5.29	27
10:40	50	42.18	0.04	17.03	0.152	84.3	0.00	5.29	28
10:45	50	42.18	0.04	17.13	0.154	68.9	0.00	5.29	29
10:50	50	42.18	0.04	17.30	0.155	68.7	0.00	5.32	29
10:55	50	42.18	0.04	17.40	0.155	70.2	0.00	5.32	29
	Sample Time		11:05						
	Sample ID		**GW-013926-041216-SAG-102**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 13, 2016

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **TW-2**

Measured Well Depth (ft): 61.71

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 2.76

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 56.5

Initial Depth to Water (ft): 44.43

Total Volume Purged (gal): 0.46

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
9:30	50	44.48	0.05	14.03	0.096	17.9	0.06	7.08	10
9:35	50	44.51	0.08	14.00	0.095	9.97	0.00	6..38	14
9:40	50	44.53	0.10	14.05	0.094	9.47	0.00	6.27	14
9:45	50	44.56	0.13	14.15	0.093	7.71	0.00	6.26	15
9:50	50	44.59	0.16	14.27	0.092	6.85	0.00	6.23	16
9:55	50	44.61	0.18	14.50	0.091	6.11	0.00	6.22	17
10:00	50	44.63	0.20	14.52	0.091	6.00	0.00	6.21	17
10:05	50	44.67	0.24	14.67	0.091	5.89	0.00	6.22	17
	Sample Time		10:15						
	Sample ID		**GW-013926-041316-SAG-105**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			2 x 40 ml unpres.			EDB			
			4 x 40 ml w/ HCl			VOCs & Dissolved Gasses			

Notes:

(1) The pump intake will be placed at mid-point of the well screen

Attachment B

Memorandum & Analytical Reports

Memorandum

To:	Bob Pyle	Ref. No.:	013926-25
From:	Angela Bown/cs/27-NF	Date:	May 6, 2016
cc:	Paul McMahon		

Re: **Analytical Results and Reduced Validation**
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in support of the semiannual groundwater sampling program at the Greer, South Carolina Site during April 2016. Samples were submitted to Analytical Environmental Services, Inc. (AES) located in Atlanta, Georgia. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodologies is presented in Table 3. Copies of the chain of custody documentation can be found in Attachment A.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS) and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", United States Environmental Protection Agency (USEPA) 540-R-10-011, January 2010

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Most method blank results were non-detect. Low levels of metals and general chemistry parameters were detected in some method blanks. All investigative sample results that were similar to the blank concentrations were qualified as non-detect. Table 4 presents the qualified sample results.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) and ethylene dibromide (EDB) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the above criteria.

5. Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision. High LCS/LCSD recoveries and/or RPD do not impact non-detect sample results.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

5.1 Organic Analyses

The LCS/LCSD contained all compounds of interest. All LCS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

5.2 Inorganic Analyses

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with known concentrations of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

If only the MS or MSD recovery was outside of control limits, no qualification of the data was performed based on the acceptable recovery of the companion spike and the acceptable RPD.

Non-detect sample results associated with high MS/MSD recoveries or RPDs were not qualified. Non-detect data would not be impacted by the indicated high bias/variability.

MS/MSD analyses were performed as specified in Table 1.

6.1 Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

6.2 Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". Most percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision. Those analytes with recoveries outside of acceptable control limits were qualified as indicated in Table 5.

7. Duplicate Sample Analyses – Inorganic Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

8. Field QA/QC Samples

The field QA/QC consisted of 6 trip blank samples and 2 field duplicate sample sets.

8.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, 6 trip blanks were submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

8.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, 2 field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision with the exception of the sample results presented with qualifiers in Table 6.

9. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

10. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters: TCL VOCs + TMBs	TCL VOCs	Dissolved Gases	EDB	Ammonia	Alkalinity	Metals	Chloride	Nitrate, Sulfate	Orthophosphate	TOC	Comments
GW-013926-041216-MRB-001	MW-28	WG	04/12/2016	09:25		x	x	x	x		x		x	x		MS/MSD
GW-013926-041216-MRB-002	MW-32	WG	04/12/2016	11:15		x	x	x	x		x		x	x		MS/MSD
GW-013926-041216-MRB-003	MW-32	WG	04/12/2016	11:30		x	x	x	x		x		x	x		FD(W-013926-041216-MRB-002)
GW-013926-041216-MRB-004	MW-39	WG	04/12/2016	14:20		x	x	x	x		x		x	x		
GW-013926-041216-MRB-005	MW-40	WG	04/12/2016	16:10		x	x	x	x		x		x	x		
GW-013926-041216-SAG-101	MW-27	WG	04/12/2016	09:25		x	x	x	x		x		x	x		
TRIP BLANK	-	WGQ	04/12/2016	-		x		x								Trip Blank
GW-013926-041216-SAG-102	MW-42	WG	04/12/2016	11:05	x		x	x	x	x	x	x	x	x	x	
GW-013926-041216-SAG-103	MW-13	WG	04/12/2016	14:30	x		x	x	x	x	x	x	x	x	x	MS/MSD/DUP
GW-013926-041216-SAG-104	MW-41	WG	04/12/2016	16:20	x		x	x	x	x	x	x	x	x	x	
TRIP BLANK	-	WGQ	04/12/2016	-	x			x								Trip Blank
GW-013926-041316-SAG-105	TW-2	WG	04/13/2016	10:15	x		x	x	x	x	x	x	x	x	x	MS/MSD
GW-013926-041316-SAG-106	MW-14	WG	04/13/2016	11:55	x		x	x	x	x	x	x	x	x	x	MS/MSD
GW-013926-041316-SAG-107	MW-12	WG	04/13/2016	14:35	x		x	x	x	x	x	x	x	x	x	MS/MSD
GW-013926-041316-SAG-108	MW-7A	WG	04/13/2016	16:45	x		x	x	x	x	x	x	x	x	x	MS/MSD
TRIP BLANK	-	WGQ	04/13/2016	-	x			x								Trip Blank
GW-013926-041316-MRB-006	MW-11	WG	04/13/2016	09:30	x		x	x	x	x	x	x	x	x	x	
GW-013926-041316-MRB-007	MW-35	WG	04/13/2016	11:05			x	x	x	x	x	x	x	x	x	
GW-013926-041316-MRB-008	MW-35	WG	04/13/2016	11:15			x	x	x	x	x	x	x	x	x	FD(GW-013926-041316-MRB-007)
GW-013926-041316-MRB-009	MW-11A	WG	04/13/2016	14:40			x	x	x	x	x	x	x	x	x	
GW-013926-041316-MRB-010	MW-3	WG	04/13/2016	16:15			x	x	x	x	x	x	x	x	x	
GW-013926-041416-SAG-109	MW-4A	WG	04/14/2016	09:00			x	x	x	x	x	x	x	x	x	DUP
GW-013926-041416-SAG-110	MW-4	WG	04/14/2016	10:00			x	x	x	x	x	x	x	x	x	
GW-013926-041416-SAG-111	MW-10A	WG	04/14/2016	11:10			x	x	x	x	x	x	x	x	x	
TRIP BLANK	-	WGQ	04/14/2016	-	x			x								Trip Blank

Notes:

- \- Not applicable
DUP - Laboratory Duplicate
EDB - Ethylene Dibromide
FD - Field Duplicate of Sample in Parentheses
MS/MSD - Matrix Spike/Matrix Spike Duplicate
TCL - Target Compound List
TMBs - Trimethylbenzenes
TOC - Total Organic Carbon
VOCs - Volatile Organic Compounds
WG - Groundwater
WGQ - Groundwater Quality Control Sample

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	MW-3	MW-4	MW-4A
	Sample Name:	GW-013926-041316-MRB-010	GW-013926-041416-SAG-110	GW-013926-041416-SAG-109
	Sample Date:	04/13/2016	04/14/2016	04/14/2016
Parameters	**Unit**			
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	24	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	2.0	3.5	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	5.6	9.6	1.3
1,1-Dichloroethene	µg/L	1.7 J	5.2	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	150 U	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U
Benzene	µg/L	1.0 U	2.9	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	0.97 J	1.8	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	12	79	11
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	MW-3	MW-4	MW-4A
	Sample Name:	GW-013926-041316-MRB-010	GW-013926-041416-SAG-110	GW-013926-041416-SAG-109
	Sample Date:	04/13/2016	04/14/2016	04/14/2016
Parameters	**Unit**			
Volatile Organic Compounds				
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	83	23	8.4
Toluene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	15	72	4.8
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	2.1 J	5.0 U
Vinyl chloride	µg/L	1.0 U	1.5	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U
Metals				
Mercury	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Antimony	µg/L	--	--	--
Arsenic	µg/L	2.35 J	0.468 J	0.290 J
Barium	µg/L	278	171	16.5
Beryllium	µg/L	--	--	--
Cadmium	µg/L	0.496 J	0.700 U	0.700 U
Calcium	µg/L	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U
Cobalt	µg/L	--	--	--
Copper	µg/L	2.36	2.00 U	2.00 U
Iron	µg/L	6690	100 U	100 U
Iron (dissolved)	µg/L	--	--	--
Lead	µg/L	1.02	0.144 J	1.06
Magnesium	µg/L	--	--	--
Manganese	µg/L	12700	4160	1.36 J
Manganese (dissolved)	µg/L	--	--	--
Nickel	µg/L	--	--	--
Potassium	µg/L	--	--	--
Selenium	µg/L	0.572 J	0.875 J	0.665 J
Silver	µg/L	--	--	--
Sodium	µg/L	--	--	--
Thallium	µg/L	--	--	--
Vanadium	µg/L	--	--	--
Zinc	µg/L	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	MW-3	MW-4	MW-4A
	Sample Name:	GW-013926-041316-MRB-010	GW-013926-041416-SAG-110	GW-013926-041416-SAG-109
	Sample Date:	04/13/2016	04/14/2016	04/14/2016
Parameters	**Unit**			
Dissolved Gases				
Ethane	µg/L	9.0 U	9.0 U	9.0 U
Ethene	µg/L	7.0 U	7.0 U	7.0 U
Methane	µg/L	4.0 U	160	4.0 U
General Chemistry				
Alkalinity, total (as CaCO3)	mg/L	22.0	36.0	33.0
Ammonia	mg/L	0.020 U	0.020 U	0.020 U
Chloride	mg/L	18	12	1.8
Nitrate (as N)	mg/L	6.1	4.0	0.11 J
Orthophosphate	mg/L	0.00986 J	0.0240	0.0154
Sulfate	mg/L	7.7	13	7.3
Total organic carbon (TOC)	mg/L	4.72	2.32	1.64
Fumigant				
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	**MW-7A**	**MW-10A**	**MW-11**
	Sample Name:	**GW-013926-041316-SAG-108**	**GW-013926-041416-SAG-111**	**GW-013926-041316-MRB-006**
	Sample Date:	**04/13/2016**	**04/14/2016**	**04/13/2016**
Parameters	**Unit**			
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	3.0
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	150 U	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U
Acetone	µg/L	24	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	6.2	2.6	8.2
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	MW-7A	MW-10A	MW-11
	Sample Name:	GW-013926-041316-SAG-108	GW-013926-041416-SAG-111	GW-013926-041316-MRB-006
	Sample Date:	04/13/2016	04/14/2016	04/13/2016
Parameters	**Unit**			
Volatile Organic Compounds				
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	11
Toluene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	1.7	1.0 U	28
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.3	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U
Metals				
Mercury	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Antimony	µg/L	--	--	--
Arsenic	µg/L	0.882 J	0.895 J	5.00 U
Barium	µg/L	66.4	22.1	65.5
Beryllium	µg/L	--	--	--
Cadmium	µg/L	0.474 J	0.700 U	0.286 J
Calcium	µg/L	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U
Cobalt	µg/L	--	--	--
Copper	µg/L	0.683 J	0.906 J	2.83
Iron	µg/L	231	79.8 J	308
Iron (dissolved)	µg/L	--	--	--
Lead	µg/L	0.423 J	5.68	0.907 J
Magnesium	µg/L	--	--	--
Manganese	µg/L	141	572	1180
Manganese (dissolved)	µg/L	--	--	--
Nickel	µg/L	--	--	--
Potassium	µg/L	--	--	--
Selenium	µg/L	5.00 U	5.00 U	0.368 J
Silver	µg/L	--	--	--
Sodium	µg/L	--	--	--
Thallium	µg/L	--	--	--
Vanadium	µg/L	--	--	--
Zinc	µg/L	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	**MW-7A**	**MW-10A**	**MW-11**
	Sample Name:	**GW-013926-041316-SAG-108**	**GW-013926-041416-SAG-111**	**GW-013926-041316-MRB-006**
	Sample Date:	**04/13/2016**	**04/14/2016**	**04/13/2016**
Parameters	**Unit**			
Dissolved Gases				
Ethane	µg/L	9.0 U	9.0 U	9.0 U
Ethene	µg/L	5.4 J	7.0 U	7.0 U
Methane	µg/L	1800	43	31
General Chemistry				
Alkalinity, total (as CaCO3)	mg/L	138	74.0	5.00
Ammonia	mg/L	1.57	0.083	0.211
Chloride	mg/L	7.7	4.4	7.1
Nitrate (as N)	mg/L	0.031 J	0.058 J	0.26
Orthophosphate	mg/L	0.159	0.0501	0.00856 J
Sulfate	mg/L	5.9	9.1	0.39 J
Total organic carbon (TOC)	mg/L	4.77	1.72	7.48
Fumigant				
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Location ID:		MW-11A	MW-12	MW-13
Sample Name:		GW-013926-041316-MRB-009	GW-013926-041316-SAG-107	GW-013926-041216-SAG-103
Sample Date:		04/13/2016	04/13/2016	04/12/2016
Parameters	**Unit**			
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	9.9	1.0 U	4.2
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	2.3
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	1.8 J
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	150 U	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.4
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	42	9.4	69
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Location ID:		MW-11A	MW-12	MW-13
Sample Name:		GW-013926-041316-MRB-009	GW-013926-041316-SAG-107	GW-013926-041216-SAG-103
Sample Date:		04/13/2016	04/13/2016	04/12/2016
Parameters	**Unit**			
Volatile Organic Compounds				
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	24	47	27
Toluene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	80	40	140
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U
Metals				
Mercury	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Antimony	µg/L	--	--	--
Arsenic	µg/L	0.367 J	0.638 J	0.371 J
Barium	µg/L	120	171	61.5
Beryllium	µg/L	--	--	--
Cadmium	µg/L	1.16	0.254 J	0.700 U
Calcium	µg/L	--	--	--
Chromium	µg/L	5.00 U	5.29	5.00 U
Cobalt	µg/L	--	--	--
Copper	µg/L	2.19	2.00 U	2.00 U
Iron	µg/L	191	51.8 J	100 U
Iron (dissolved)	µg/L	--	--	--
Lead	µg/L	0.340 J	0.278 J	0.207 J
Magnesium	µg/L	--	--	--
Manganese	µg/L	2960	427	67.6
Manganese (dissolved)	µg/L	--	--	--
Nickel	µg/L	--	--	--
Potassium	µg/L	--	--	--
Selenium	µg/L	0.652 J	1.22 J	0.981 J
Silver	µg/L	--	--	--
Sodium	µg/L	--	--	--
Thallium	µg/L	--	--	--
Vanadium	µg/L	--	--	--
Zinc	µg/L	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	MW-11A	MW-12	MW-13
	Sample Name:	GW-013926-041316-MRB-009	GW-013926-041316-SAG-107	GW-013926-041216-SAG-103
	Sample Date:	04/13/2016	04/13/2016	04/12/2016
Parameters	**Unit**			
Dissolved Gases				
Ethane	µg/L	9.0 U	9.0 U	9.0 U
Ethene	µg/L	7.0 U	7.0 U	7.0 U
Methane	µg/L	41	1.8 J	1.3 J
General Chemistry				
Alkalinity, total (as CaCO3)	mg/L	25.0	7.00	25.0
Ammonia	mg/L	0.020 U	0.020 U	0.020 U
Chloride	mg/L	14	14	9.6 J
Nitrate (as N)	mg/L	0.48	3.2	0.89
Orthophosphate	mg/L	0.0143	0.0208	0.0815
Sulfate	mg/L	4.1	2.0	0.81 J
Total organic carbon (TOC)	mg/L	1.52	1.46	11.2
Fumigant				
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	**MW-14**	**MW-27**	**MW-28**
	Sample Name:	**GW-013926-041316-SAG-106**	**GW-013926-041216-SAG-101**	**GW-013926-041216-MRB-001**
	Sample Date:	**04/13/2016**	**04/12/2016**	**04/12/2016**
Parameters	**Unit**			
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	--	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	--	--
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	150 U	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Location ID:		MW-14	MW-27	MW-28
Sample Name:		GW-013926-041316-SAG-106	GW-013926-041216-SAG-101	GW-013926-041216-MRB-001
Sample Date:		04/13/2016	04/12/2016	04/12/2016
Parameters	**Unit**			
Volatile Organic Compounds				
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.3	1.8
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	600	900
Toluene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	1.0 U	2.6	3.6
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U
Metals				
Mercury	mg/L	--	0.00020 U	0.00020 U
Aluminum	µg/L	--	11700	22500
Antimony	µg/L	--	0.327 J	0.222 J
Arsenic	µg/L	0.421 J	5.96	9.65
Barium	µg/L	48.8	388	812
Beryllium	µg/L	--	0.763 J	1.46
Cadmium	µg/L	0.188 J	0.535 J	0.212 J
Calcium	µg/L	--	1920	1950
Chromium	µg/L	5.00 U	20.0	38.4
Cobalt	µg/L	--	4.83 J	8.26
Copper	µg/L	2.00 U	2.21	4.52
Iron	µg/L	465	8850	17700
Iron (dissolved)	µg/L	--	100 U	100 U
Lead	µg/L	0.514 J	8.04	15.9
Magnesium	µg/L	--	4150	8290
Manganese	µg/L	6.80	754	496
Manganese (dissolved)	µg/L	--	2.04 J	9.83
Nickel	µg/L	--	14.3	25.6
Potassium	µg/L	--	3880	7040
Selenium	µg/L	1.53 J	0.313 J	0.513 J
Silver	µg/L	--	0.0330 J	0.0670 J
Sodium	µg/L	--	42600	60400
Thallium	µg/L	--	0.234 J	0.456 J
Vanadium	µg/L	--	77.6	141
Zinc	µg/L	--	52.7	69.2

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	**MW-14**	**MW-27**	**MW-28**
	Sample Name:	**GW-013926-041316-SAG-106**	**GW-013926-041216-SAG-101**	**GW-013926-041216-MRB-001**
	Sample Date:	**04/13/2016**	**04/12/2016**	**04/12/2016**
Parameters	**Unit**			
Dissolved Gases				
Ethane	µg/L	9.0 U	--	--
Ethene	µg/L	7.0 U	--	--
Methane	µg/L	4.0 U	--	--
General Chemistry				
Alkalinity, total (as CaCO3)	mg/L	21.0	--	--
Ammonia	mg/L	0.020 U	0.020 U	0.020 U
Chloride	mg/L	2.5	--	--
Nitrate (as N)	mg/L	1.7	5.8	5.4
Orthophosphate	mg/L	0.0103	7.63	13.8
Sulfate	mg/L	15	10	13
Total organic carbon (TOC)	mg/L	0.961 J	--	--
Fumigant				
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Location ID:		MW-32	MW-32	MW-35
Sample Name:		GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-041316-MRB-007
Sample Date:		04/12/2016	04/12/2016	04/13/2016
			Duplicate	
Parameters	**Unit**			
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	14
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.7
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	--	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	--	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	150 U	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.4	39
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	MW-32	MW-32	MW-35
	Sample Name:	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-041316-MRB-007
	Sample Date:	04/12/2016	04/12/2016	04/13/2016
			Duplicate	
Parameters	**Unit**			
Volatile Organic Compounds				
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.2	0.99 J	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	950	960	14
Toluene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	4.6	4.4	140
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.4
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U
Metals				
Mercury	mg/L	0.00020 U	0.00008 J	--
Aluminum	µg/L	1200	1320	--
Antimony	µg/L	0.170 J	0.154 J	--
Arsenic	µg/L	0.532 J	0.532 J	0.504 J
Barium	µg/L	88.3	94.7	211
Beryllium	µg/L	0.197 J	0.221 J	--
Cadmium	µg/L	0.700 U	0.700 U	0.211 J
Calcium	µg/L	2830	2580	--
Chromium	µg/L	9.57	10.7	5.00 U
Cobalt	µg/L	0.848 J	0.921 J	--
Copper	µg/L	1.96 J	1.48 J	4.08
Iron	µg/L	1770	1950	304
Iron (dissolved)	µg/L	100 U	100 U	--
Lead	µg/L	1.30	1.36	0.614 J
Magnesium	µg/L	1120	1190	--
Manganese	µg/L	17.8	20.2	372
Manganese (dissolved)	µg/L	2.68 J	4.21 J	--
Nickel	µg/L	2.49 J	2.62 J	--
Potassium	µg/L	1480	1560	--
Selenium	µg/L	0.638 J	0.423 J	1.39 J
Silver	µg/L	0.0510 J	0.0420 J	--
Sodium	µg/L	27500	29100	--
Thallium	µg/L	1.00 U	1.00 U	--
Vanadium	µg/L	6.68	7.50	--
Zinc	µg/L	27.2 J	11.7 J	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	MW-32	MW-32	MW-35
	Sample Name:	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-041316-MRB-007
	Sample Date:	04/12/2016	04/12/2016	04/13/2016
			Duplicate	
Parameters	**Unit**			
Dissolved Gases				
Ethane	µg/L	--	--	9.0 U
Ethene	µg/L	--	--	7.0 U
Methane	µg/L	--	--	9.4
General Chemistry				
Alkalinity, total (as CaCO3)	mg/L	--	--	5.00
Ammonia	mg/L	0.020 U	0.020 U	0.141 J
Chloride	mg/L	--	--	29
Nitrate (as N)	mg/L	5.4	5.4	0.38
Orthophosphate	mg/L	0.692	0.760	0.00703 J
Sulfate	mg/L	9.2	10	2.7 J
Total organic carbon (TOC)	mg/L	--	--	5.49
Fumigant				
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	**MW-35**	**MW-39**	**MW-40**
	Sample Name:	**GW-013926-041316-MRB-008**	**GW-013926-041216-MRB-004**	**GW-013926-041216-MRB-005**
	Sample Date:	**04/13/2016**	**04/12/2016**	**04/12/2016**
		Duplicate		
Parameters	**Unit**			
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	13	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.7	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	--	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	--	--
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	150 U	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	38	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Location ID:		MW-35	MW-39	MW-40
Sample Name:		GW-013926-041316-MRB-008	GW-013926-041216-MRB-004	GW-013926-041216-MRB-005
Sample Date:		04/13/2016	04/12/2016	04/12/2016
		Duplicate		
Parameters	**Unit**			
Volatile Organic Compounds				
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	14	94	14
Toluene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	140	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.3	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U
Metals				
Mercury	mg/L	--	0.00007 J	0.00020 U
Aluminum	µg/L	--	2520	847
Antimony	µg/L	--	0.238 J	0.255 J
Arsenic	µg/L	0.480 J	0.219 J	0.206 J
Barium	µg/L	207	213	182
Beryllium	µg/L	--	0.495 J	0.304 J
Cadmium	µg/L	0.210 J	0.700 U	0.602 J
Calcium	µg/L	--	1030	1330
Chromium	µg/L	5.00 U	5.96	0.951 J
Cobalt	µg/L	--	3.83 J	11.6
Copper	µg/L	4.11	1.43 J	1.84 J
Iron	µg/L	307	2130	643
Iron (dissolved)	µg/L	--	100 U	100 U
Lead	µg/L	0.657 J	7.03	2.97
Magnesium	µg/L	--	3260	2410
Manganese	µg/L	366	44.9	655
Manganese (dissolved)	µg/L	--	27.3	634
Nickel	µg/L	--	2.42 J	5.55
Potassium	µg/L	--	3780	4670
Selenium	µg/L	1.58 J	0.164 J	0.906 J
Silver	µg/L	--	0.0540 J	1.00 U
Sodium	µg/L	--	13700	6380
Thallium	µg/L	--	0.177 J	0.631 J
Vanadium	µg/L	--	3.62 J	0.813 J
Zinc	µg/L	--	20.2	27.0

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	**MW-35**	**MW-39**	**MW-40**
	Sample Name:	**GW-013926-041316-MRB-008**	**GW-013926-041216-MRB-004**	**GW-013926-041216-MRB-005**
	Sample Date:	**04/13/2016**	**04/12/2016**	**04/12/2016**
		Duplicate		
Parameters	**Unit**			
Dissolved Gases				
Ethane	µg/L	9.0 U	--	--
Ethene	µg/L	7.0 U	--	--
Methane	µg/L	9.4	--	--
General Chemistry				
Alkalinity, total (as CaCO3)	mg/L	3.00 U	--	--
Ammonia	mg/L	0.052 J	0.020 U	0.020 U
Chloride	mg/L	30	--	--
Nitrate (as N)	mg/L	0.38	4.2	2.9
Orthophosphate	mg/L	0.00857 J	0.0316	0.0100 U
Sulfate	mg/L	9.9 J	13	10
Total organic carbon (TOC)	mg/L	5.67	--	--
Fumigant				
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Location ID:		MW-41	MW-42	TW-2
Sample Name:		GW-013926-041216-SAG-104	GW-013926-041216-SAG-102	GW-013926-041316-SAG-105
Sample Date:		04/12/2016	04/12/2016	04/13/2016
Parameters	**Unit**			
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	1.0 U	2.6	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	16	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	22	1.0 U
1,1-Dichloroethene	µg/L	1.4 J	25	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.8	2.4	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	150 U	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U
Benzene	µg/L	1.0 U	0.60 J	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.8	15	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	2.5	190	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Location ID:		MW-41	MW-42	TW-2
Sample Name:		GW-013926-041216-SAG-104	GW-013926-041216-SAG-102	GW-013926-041316-SAG-105
Sample Date:		04/12/2016	04/12/2016	04/13/2016
Parameters	**Unit**			
Volatile Organic Compounds				
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5.7	49	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	7.9	230	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.3	4.0	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	6.7	5.0 U
Vinyl chloride	µg/L	1.0 U	1.6	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U
Metals				
Mercury	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Antimony	µg/L	--	--	--
Arsenic	µg/L	0.424 J	0.432 J	0.366 J
Barium	µg/L	176	184	17.4
Beryllium	µg/L	--	--	--
Cadmium	µg/L	0.236 J	0.359 J	0.186 J
Calcium	µg/L	--	--	--
Chromium	µg/L	1.43 J	1.32 J	5.00 U
Cobalt	µg/L	--	--	--
Copper	µg/L	1.04 J	0.378 J	2.00 U
Iron	µg/L	508	679	37.9 J
Iron (dissolved)	µg/L	--	--	--
Lead	µg/L	0.799 J	0.261 J	0.523 J
Magnesium	µg/L	--	--	--
Manganese	µg/L	44.7	27.2	57.8
Manganese (dissolved)	µg/L	--	--	--
Nickel	µg/L	--	--	--
Potassium	µg/L	--	--	--
Selenium	µg/L	0.406 J	0.989 J	1.09 J
Silver	µg/L	--	--	--
Sodium	µg/L	--	--	--
Thallium	µg/L	--	--	--
Vanadium	µg/L	--	--	--
Zinc	µg/L	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

	Location ID:	MW-41	MW-42	TW-2
	Sample Name:	GW-013926-041216-SAG-104	GW-013926-041216-SAG-102	GW-013926-041316-SAG-105
	Sample Date:	04/12/2016	04/12/2016	04/13/2016
Parameters	**Unit**			
Dissolved Gases				
Ethane	µg/L	9.0 U	9.0 U	9.0 U
Ethene	µg/L	7.0 U	7.0 U	7.0 U
Methane	µg/L	4.0 U	12	4.0 U
General Chemistry				
Alkalinity, total (as CaCO3)	mg/L	5.00	26.0	25.0
Ammonia	mg/L	0.020 U	0.020 U	0.020 U
Chloride	mg/L	12 J	14 J	2.3
Nitrate (as N)	mg/L	1.2	1.6	1.0
Orthophosphate	mg/L	0.182	0.147	0.0868
Sulfate	mg/L	17	0.46 J	3.5
Total organic carbon (TOC)	mg/L	10.7	9.42	1.44
Fumigant				
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value

Table 3

Analytical Methods
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260B	Groundwater	14
Dissolved Gases	RSK 175	Groundwater	14
Ethylene Dibromide (EDB)	SW-846 8011	Groundwater	14
Total and Dissolved Metals	SW-846 6020A	Groundwater	180
Mercury	SW-846 7470A	Groundwater	28
Alkalinity	SM 2320 B	Groundwater	14
Total Organic Carbon (TOC)	SW-846 9060	Groundwater	28
Nitrate	SW-846 9056A	Groundwater	48 hours
Sulfate, Chloride	SW-846 9056A	Groundwater	28
Orthophosphate	EPA 365.1	Groundwater	48 hours
Ammonia	EPA 350.1	Groundwater	28

Notes:

EPA - Referenced from "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986 with all subsequent revisions

RSK - "Analysis of Dissolved Methane, Ethane, and Ethylene in Ground Water by a Standard Gas Chromatographic Technique", Journal of Chromatographic Science, Vol. 36, May 1998

SW-846 - Referenced from "Methods for the Chemical Analysis of Water and Wastes", (MCAWW), USEPA-600/4-79-020, March 1983 and subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Parameter	Analyte	Analysis Date	Blank Result *	Sample ID	Original Result	Qualified Result	Units
Metals	Chromium	4/19/2016	0.16 J	GW-013926-041216-SAG-103	0.388 J	5.00 U	µg/L
Metals	Chromium	4/20/2016	0.401 J	GW-013926-041316-SAG-105	1.04 J	5.00 U	µg/L
				GW-013926-041316-SAG-106	1.38 J	5.00 U	µg/L
				GW-013926-041316-SAG-108	0.874 J	5.00 U	µg/L
				GW-013926-041316-MRB-006	0.926 J	5.00 U	µg/L
				GW-013926-041316-MRB-007	1.03 J	5.00 U	µg/L
				GW-013926-041316-MRB-008	1.19 J	5.00 U	µg/L
				GW-013926-041316-MRB-009	0.934 J	5.00 U	µg/L
				GW-013926-041316-MRB-010	1.68 J	5.00 U	µg/L
				GW-013926-041416-SAG-109	0.588 J	5.00 U	µg/L
				GW-013926-041416-SAG-110	0.753 J	5.00 U	µg/L
				GW-013926-041416-SAG-111	0.899 J	5.00 U	µg/L

Notes:

* - Blank result adjusted for sample factors where applicable
J - Estimated concentration
U - Not detected at the associated reporting limit

Table 5

Qualified Sample Results Due to Outlying MS/MSD Results
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits % Recovery	Control Limits RPD	Qualified Result	Units
General Chemistry	GW-013926-041216-SAG-102	Chloride	79.6	79.9	0.1	90-110	20	14 J	mg/L
	GW-013926-041216-SAG-103							9.6 J	mg/L
	GW-013926-041216-SAG-104							12 J	mg/L

Notes:

J - Estimated concentration
MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference

Table 6

Qualified Sample Data Due to Variability in Field Duplicate Results
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2016

Parameter	Analyte	RPD/Diff		Sample ID	Qualified Result	Field Duplicate Sample ID	Qualified Result	Units
Metals	Zinc	80	16	GW-013926-041216-MRB-002	27.2 J	GW-013926-041216-MRB-003	11.7 J	µg/L
General Chemistry	Ammonia	92	0.089	GW-013926-041316-MRB-007	0.141 J	GW-013926-041316-MRB-008	0.052 J	mg/L
	Sulfate	114	7.2		2.7 J		9.9 J	mg/L

Notes:

Diff - Difference (>1X RL for waters)
J - Estimated concentration
RPD - Relative Percent Difference

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENTATION

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1604A68

Date: 4/12/16 Page 1 of 1

COMPANY: GHD

ADDRESS: 3015 Breckinridge Blvd. Suite 470, Duluth, GA 30096

PHONE: 770-441-0027

FAX: 770-441-9050

SAMPLED BY: Steven Gray

SIGNATURE:

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs + TMB's	Diss. Gasses	EDB	Alkalinity	TAL metals	chloride, Nitrate, Sulfate	ortho P	NH_3	TOC	MS/MSD				REMARKS	No # of Containers
	PRESERVATION (See codes)																				
1	GW-013926-041216-SAG-102	4/12/16	1165	X		GW	X	X	X	X	X	X	X	X	X						12
2	GW-013926-041216-SAG-103	↓	1430	X		↓	X	X	X	X	X	X	X	X	X	X					36
3	GW-013926-041216-SAG-104	↓	1620	X		↓	X	X	X	X	X	X	X	X	X						12
4	Trip Blank																				2
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	4/12/16 1800	1:	4/13/16 10:30
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS: 5.4°C
See SSOW # 13926-25-036

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

PROJECT INFORMATION
PROJECT NAME: Agvstech
PROJECT #: 13926
SITE ADDRESS: Robinson Rd. Greer, SC
SEND REPORT TO: See SSOW
INVOICE TO: (IF DIFFERENT FROM ABOVE) See SSOW
QUOTE #: PO#:

RECEIPT
Total # of Containers 62

Turnaround Time Request
(X) Standard 5 Business Days
( ) 2 Business Day Rush
( ) Next Business Day Rush
( ) Same Day Rush (auth req.)
( ) Other

STATE PROGRAM (if any):
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1004C59

Date: 4/14/16 Page ____ of ____

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd. Ste 470, Duluth, GA 30096

PHONE: 770-441-8027

FAX: 770-441-8050

SAMPLED BY: Steven Grace

SIGNATURE: [signature]

ANALYSIS REQUESTED: VOC's + TMB's; EDB; diss. gases; Alkalinity; TOC; ortho P; TAL metals; NH3; Chloride, Nitrate, Sulfate

PRESERVATION (See codes)

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC's + TMB's	EDB	diss. gases	Alkalinity	TOC	ortho P	TAL metals	NH3	Chloride, Nitrate, Sulfate					REMARKS	No # of Containers
1	GW-013926-041316-SAG-105	4/13/16	1015	X		GW	X	X	X	X	X	X	X	X	X						12
2	" " " " -106		1155	X			X	X	X	X	X	X	X	X	X						12
3	" " " " -107		1435	X			X	X	X	X	X	X	X	X	X						12
4	" " " " -108		1625	X			X	X	X	X	X	X	X	X	X						12
5	Trip Blank						X	X													
6	GW-013926-041316-MRB-006	4/13/16	9:30	X		GW	X	X	X	X	X	X	X	X	X						12
7	" " " " -007		11:05	X			X	X	X	X	X	X	X	X	X						12
8	" " " " -008		11:15	X			X	X	X	X	X	X	X	X	X						12
9	" " " " -009		14:40	X			X	X	X	X	X	X	X	X	X						12
10	" " " " -010		16:15	X			X	X	X	X	X	X	X	X	X						12
11	GW-013926-041416-SAG-109	4/14/16	9:00	X			X	X	X	X	X	X	X	X	X						12
12	" " " " -110		10:00	X			X	X	X	X	X	X	X	X	X						12
13	" " " " -111		11:10	X			X	X	X	X	X	X	X	X	X						12
14	TRIP BLANK						X	X													

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	4/14/16 1535	1: Jessica Atkilly	4/14/16 3:35 pm
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Aquatech

PROJECT #: 013926

SITE ADDRESS: 420 Robinson Road, Greer, SC

SEND REPORT TO: Terre Ee. Mazengia

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: ____ PO#: ____

RECEIPT

Total # of Containers

Turnaround Time Request
- ⊗ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other ____

STATE PROGRAM (if any): ____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS: See SSOW

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER Drop off

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 21, 2016

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aqua-Tech Environmental

Dear Terefe Mazengia:

Order No: 1604A26

Analytical Environmental Services, Inc. received 7 samples on 4/13/2016 10:30:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Chantelle Kanhai
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 16A426

Date: 4/12/16 Page 1 of 1

COMPANY: GHD
ADDRESS: 3075 Breckinridge Blvd. Duluth, GA 30096
PHONE: 770-441-0027
FAX:
SAMPLED BY: M. Bedford, S. Grace
SIGNATURE: Madison Bedford

ANALYSIS REQUESTED

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL VOCs	TAL Metals	Sulfate/Nitrate	Diss. Fe & Mn	Ammonia	Ortho Phos	EDB								No # of Containers
							PRESERVATION (See codes)														
1	GW-013926-041216-MRB-001	4/12/16	9:25	X		GW	2	1	1	1	1	1	2								9
2	" " " " -002		11:15	X			2	1	1	1	1	1	2								9
3	" " " " -003		11:30	X			2	1	1	1	1	1	2								9
4	" " " " -004		14:20	X			2	1	1	1	1	1	2								9
5	" " " " -005		16:10	X			2	1	1	1	1	1	2								9
6	GW-013926-041216-MRB-101		9:25	X			2	1	1	1	1	1	2								9
7	TRIP Blank						1						1								2
8																					
9																					
10																					
11																					
12																					
13																					
14																					

REMARKS

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Madison Bedford	4/12/16 17:00	1: Chris Jest	4-13-16 10:30
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS: see SSOW 1.3°C

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

PROJECT INFORMATION
PROJECT NAME: Aquatech
PROJECT #: 013926
SITE ADDRESS: 420 Robinson Rd. Greer, SC
SEND REPORT TO: Teresfe Mazengia
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers 56

Turnaround Time Request
- (X) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other

STATE PROGRAM (if any):
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

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PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1604A26

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

Trichloroethene value for the QC sample 1604A68-002AMS/MSD is "E" qualified indicating estimated value over linear calibration range due to the level of target analyte present in the unspiked sample.

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-001
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 9:25:00 AM
Lab ID:	1604A26-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222671	1	04/15/2016 00:12	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 00:12	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/15/2016 00:12	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/15/2016 00:12	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/15/2016 00:12	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/15/2016 00:12	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/15/2016 00:12	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/15/2016 00:12	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/15/2016 00:12	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Chloroform	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/15/2016 00:12	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222671	1	04/15/2016 00:12	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/15/2016 00:12	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/15/2016 00:12	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/15/2016 00:12	NP
Methyl tert-butyl ether	1.8		0.22	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/15/2016 00:12	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/15/2016 00:12	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-001
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 9:25:00 AM
Lab ID:	1604A26-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Tetrachloroethene	900		2.9	10	ug/L	222671	10	04/15/2016 12:34	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 00:12	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/15/2016 00:12	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/15/2016 00:12	NP
Trichloroethene	3.6		0.35	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 00:12	NP
Surr: 4-Bromofluorobenzene	83.5		0	70-130	%REC	222671	10	04/15/2016 12:34	NP
Surr: 4-Bromofluorobenzene	84.6		0	70-130	%REC	222671	1	04/15/2016 00:12	NP
Surr: Dibromofluoromethane	115		0	70-130	%REC	222671	1	04/15/2016 00:12	NP
Surr: Dibromofluoromethane	120		0	70-130	%REC	222671	10	04/15/2016 12:34	NP
Surr: Toluene-d8	90		0	70-130	%REC	222671	1	04/15/2016 00:12	NP
Surr: Toluene-d8	89.7		0	70-130	%REC	222671	10	04/15/2016 12:34	NP
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	22500		5.87	50.0	ug/L	222745	1	04/19/2016 17:52	JS
Antimony	0.222	J	0.151	5.00	ug/L	222745	1	04/19/2016 17:52	JS
Arsenic	9.65		0.125	5.00	ug/L	222745	1	04/19/2016 17:52	JS
Barium	812		0.180	10.0	ug/L	222745	1	04/19/2016 17:52	JS
Beryllium	1.46		0.178	1.00	ug/L	222745	1	04/19/2016 17:52	JS
Cadmium	0.212	J	0.184	0.700	ug/L	222745	1	04/19/2016 17:52	JS
Calcium	1950		12.7	100	ug/L	222745	1	04/19/2016 17:52	JS
Chromium	38.4		0.137	5.00	ug/L	222745	1	04/19/2016 17:52	JS
Cobalt	8.26		0.155	5.00	ug/L	222745	1	04/19/2016 17:52	JS
Copper	4.52		0.228	2.00	ug/L	222745	1	04/19/2016 17:52	JS
Iron	17700		31.9	100	ug/L	222745	1	04/19/2016 17:52	JS
Lead	15.9		0.143	1.00	ug/L	222745	1	04/19/2016 17:52	JS
Magnesium	8290		1.90	100	ug/L	222745	1	04/19/2016 17:52	JS
Manganese	496		0.508	5.00	ug/L	222745	1	04/19/2016 17:52	JS
Nickel	25.6		0.132	5.00	ug/L	222745	1	04/19/2016 17:52	JS
Potassium	7040		2.55	100	ug/L	222745	1	04/19/2016 17:52	JS
Selenium	0.513	J	0.159	5.00	ug/L	222745	1	04/19/2016 17:52	JS
Silver	0.0670	J	0.0163	1.00	ug/L	222745	1	04/19/2016 17:52	JS
Sodium	60400		14.2	500	ug/L	222745	1	04/19/2016 17:52	JS
Thallium	0.456	J	0.127	1.00	ug/L	222745	1	04/19/2016 17:52	JS
Vanadium	141		0.130	5.00	ug/L	222745	1	04/19/2016 17:52	JS
Zinc	69.2		3.92	10.0	ug/L	222745	1	04/19/2016 17:52	JS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-001
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 9:25:00 AM
Lab ID:	1604A26-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	13.8		0.380	1.00	mg/L	R314592	100	04/13/2016 19:47	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R314856	1	04/18/2016 17:27	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222548	1	04/15/2016 04:15	AW
Surr: 4-Bromofluorobenzene	85.5		0	64.9-131	%REC	222548	1	04/15/2016 04:15	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00007	0.00020	mg/L	222715	1	04/18/2016 15:12	JR
ION SCAN SW9056A									
Nitrate	5.4		0.024	0.25	mg/L	R314721	1	04/13/2016 12:28	JW
Sulfate	13		0.10	1.0	mg/L	R314721	1	04/13/2016 12:28	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	222808	1	04/19/2016 15:15	JS
Manganese	9.83		0.508	5.00	ug/L	222808	1	04/19/2016 15:15	JS

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-002
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 11:15:00 AM
Lab ID:	1604A26-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222671	1	04/15/2016 00:35	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 00:35	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/15/2016 00:35	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/15/2016 00:35	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/15/2016 00:35	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/15/2016 00:35	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/15/2016 00:35	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/15/2016 00:35	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/15/2016 00:35	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Chloroform	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/15/2016 00:35	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222671	1	04/15/2016 00:35	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/15/2016 00:35	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/15/2016 00:35	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/15/2016 00:35	NP
Methyl tert-butyl ether	1.2		0.22	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/15/2016 00:35	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/15/2016 00:35	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-002
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 11:15:00 AM
Lab ID:	1604A26-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Tetrachloroethene	950		2.9	10	ug/L	222671	10	04/15/2016 12:57	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 00:35	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/15/2016 00:35	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/15/2016 00:35	NP
Trichloroethene	4.6		0.35	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 00:35	NP
Surr: 4-Bromofluorobenzene	82.2		0	70-130	%REC	222671	1	04/15/2016 00:35	NP
Surr: 4-Bromofluorobenzene	83.4		0	70-130	%REC	222671	10	04/15/2016 12:57	NP
Surr: Dibromofluoromethane	114		0	70-130	%REC	222671	1	04/15/2016 00:35	NP
Surr: Dibromofluoromethane	117		0	70-130	%REC	222671	10	04/15/2016 12:57	NP
Surr: Toluene-d8	87.9		0	70-130	%REC	222671	1	04/15/2016 00:35	NP
Surr: Toluene-d8	89.9		0	70-130	%REC	222671	10	04/15/2016 12:57	NP
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	1200		5.87	50.0	ug/L	222745	1	04/19/2016 18:17	JS
Antimony	0.170	J	0.151	5.00	ug/L	222745	1	04/19/2016 18:17	JS
Arsenic	0.532	J	0.125	5.00	ug/L	222745	1	04/19/2016 18:17	JS
Barium	88.3		0.180	10.0	ug/L	222745	1	04/19/2016 18:17	JS
Beryllium	0.197	J	0.178	1.00	ug/L	222745	1	04/19/2016 18:17	JS
Cadmium	BRL		0.184	0.700	ug/L	222745	1	04/19/2016 18:17	JS
Calcium	2830		12.7	100	ug/L	222745	1	04/19/2016 18:17	JS
Chromium	9.57		0.137	5.00	ug/L	222745	1	04/19/2016 18:17	JS
Cobalt	0.848	J	0.155	5.00	ug/L	222745	1	04/19/2016 18:17	JS
Copper	1.96	J	0.228	2.00	ug/L	222745	1	04/19/2016 18:17	JS
Iron	1770		31.9	100	ug/L	222745	1	04/19/2016 18:17	JS
Lead	1.30		0.143	1.00	ug/L	222745	1	04/19/2016 18:17	JS
Magnesium	1120		1.90	100	ug/L	222745	1	04/19/2016 18:17	JS
Manganese	17.8		0.508	5.00	ug/L	222745	1	04/19/2016 18:17	JS
Nickel	2.49	J	0.132	5.00	ug/L	222745	1	04/19/2016 18:17	JS
Potassium	1480		2.55	100	ug/L	222745	1	04/19/2016 18:17	JS
Selenium	0.638	J	0.159	5.00	ug/L	222745	1	04/19/2016 18:17	JS
Silver	0.0510	J	0.0163	1.00	ug/L	222745	1	04/19/2016 18:17	JS
Sodium	27500		14.2	500	ug/L	222745	1	04/19/2016 18:17	JS
Thallium	BRL		0.127	1.00	ug/L	222745	1	04/19/2016 18:17	JS
Vanadium	6.68		0.130	5.00	ug/L	222745	1	04/19/2016 18:17	JS
Zinc	27.2		3.92	10.0	ug/L	222745	1	04/19/2016 18:17	JS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-002
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 11:15:00 AM
Lab ID:	1604A26-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.692		0.0760	0.200	mg/L	R314592	20	04/13/2016 19:49	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R314856	1	04/18/2016 17:29	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222548	1	04/15/2016 04:44	AW
Surr: 4-Bromofluorobenzene	88		0	64.9-131	%REC	222548	1	04/15/2016 04:44	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00007	0.00020	mg/L	222715	1	04/18/2016 15:14	JR
ION SCAN SW9056A									
Nitrate	5.4		0.024	0.25	mg/L	R314721	1	04/13/2016 12:43	JW
Sulfate	9.2		0.10	1.0	mg/L	R314721	1	04/13/2016 12:43	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	222808	1	04/19/2016 15:46	JS
Manganese	2.68	J	0.508	5.00	ug/L	222808	1	04/19/2016 15:46	JS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-003
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 11:30:00 AM
Lab ID:	1604A26-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222671	1	04/15/2016 00:59	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 00:59	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/15/2016 00:59	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/15/2016 00:59	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/15/2016 00:59	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/15/2016 00:59	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/15/2016 00:59	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/15/2016 00:59	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/15/2016 00:59	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Chloroform	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/15/2016 00:59	NP
cis-1,2-Dichloroethene	1.4		0.27	1.0	ug/L	222671	1	04/15/2016 00:59	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/15/2016 00:59	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/15/2016 00:59	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/15/2016 00:59	NP
Methyl tert-butyl ether	0.99	J	0.22	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/15/2016 00:59	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/15/2016 00:59	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-003
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 11:30:00 AM
Lab ID:	1604A26-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Tetrachloroethene	960		2.9	10	ug/L	222671	10	04/15/2016 13:21	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 00:59	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/15/2016 00:59	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/15/2016 00:59	NP
Trichloroethene	4.4		0.35	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 00:59	NP
Surr: 4-Bromofluorobenzene	81.8		0	70-130	%REC	222671	10	04/15/2016 13:21	NP
Surr: 4-Bromofluorobenzene	83.3		0	70-130	%REC	222671	1	04/15/2016 00:59	NP
Surr: Dibromofluoromethane	116		0	70-130	%REC	222671	1	04/15/2016 00:59	NP
Surr: Dibromofluoromethane	118		0	70-130	%REC	222671	10	04/15/2016 13:21	NP
Surr: Toluene-d8	88.9		0	70-130	%REC	222671	10	04/15/2016 13:21	NP
Surr: Toluene-d8	90.4		0	70-130	%REC	222671	1	04/15/2016 00:59	NP
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	1320		5.87	50.0	ug/L	222745	1	04/19/2016 18:24	JS
Antimony	0.154	J	0.151	5.00	ug/L	222745	1	04/19/2016 18:24	JS
Arsenic	0.532	J	0.125	5.00	ug/L	222745	1	04/19/2016 18:24	JS
Barium	94.7		0.180	10.0	ug/L	222745	1	04/19/2016 18:24	JS
Beryllium	0.221	J	0.178	1.00	ug/L	222745	1	04/19/2016 18:24	JS
Cadmium	BRL		0.184	0.700	ug/L	222745	1	04/19/2016 18:24	JS
Calcium	2580		12.7	100	ug/L	222745	1	04/19/2016 18:24	JS
Chromium	10.7		0.137	5.00	ug/L	222745	1	04/19/2016 18:24	JS
Cobalt	0.921	J	0.155	5.00	ug/L	222745	1	04/19/2016 18:24	JS
Copper	1.48	J	0.228	2.00	ug/L	222745	1	04/19/2016 18:24	JS
Iron	1950		31.9	100	ug/L	222745	1	04/19/2016 18:24	JS
Lead	1.36		0.143	1.00	ug/L	222745	1	04/19/2016 18:24	JS
Magnesium	1190		1.90	100	ug/L	222745	1	04/19/2016 18:24	JS
Manganese	20.2		0.508	5.00	ug/L	222745	1	04/19/2016 18:24	JS
Nickel	2.62	J	0.132	5.00	ug/L	222745	1	04/19/2016 18:24	JS
Potassium	1560		2.55	100	ug/L	222745	1	04/19/2016 18:24	JS
Selenium	0.423	J	0.159	5.00	ug/L	222745	1	04/19/2016 18:24	JS
Silver	0.0420	J	0.0163	1.00	ug/L	222745	1	04/19/2016 18:24	JS
Sodium	29100		14.2	500	ug/L	222745	1	04/19/2016 18:24	JS
Thallium	BRL		0.127	1.00	ug/L	222745	1	04/19/2016 18:24	JS
Vanadium	7.50		0.130	5.00	ug/L	222745	1	04/19/2016 18:24	JS
Zinc	11.7		3.92	10.0	ug/L	222745	1	04/19/2016 18:24	JS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-003
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 11:30:00 AM
Lab ID:	1604A26-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.760		0.0760	0.200	mg/L	R314592	20	04/13/2016 19:54	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R314856	1	04/18/2016 17:30	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222548	1	04/15/2016 05:13	AW
Surr: 4-Bromofluorobenzene	84.4		0	64.9-131	%REC	222548	1	04/15/2016 05:13	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	0.00008	J	0.00007	0.00020	mg/L	222715	1	04/18/2016 15:16	JR
ION SCAN SW9056A									
Nitrate	5.4		0.024	0.25	mg/L	R314721	1	04/13/2016 12:58	JW
Sulfate	10		0.10	1.0	mg/L	R314721	1	04/13/2016 12:58	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	222808	1	04/19/2016 15:53	JS
Manganese	4.21	J	0.508	5.00	ug/L	222808	1	04/19/2016 15:53	JS

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-004
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 2:20:00 PM
Lab ID:	1604A26-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222671	1	04/15/2016 01:22	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 01:22	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/15/2016 01:22	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/15/2016 01:22	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/15/2016 01:22	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/15/2016 01:22	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/15/2016 01:22	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/15/2016 01:22	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/15/2016 01:22	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Chloroform	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/15/2016 01:22	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222671	1	04/15/2016 01:22	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/15/2016 01:22	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/15/2016 01:22	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/15/2016 01:22	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/15/2016 01:22	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/15/2016 01:22	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-004
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 2:20:00 PM
Lab ID:	1604A26-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Tetrachloroethene	94		0.29	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 01:22	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/15/2016 01:22	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/15/2016 01:22	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 01:22	NP
Surr: 4-Bromofluorobenzene	82.7		0	70-130	%REC	222671	1	04/15/2016 01:22	NP
Surr: Dibromofluoromethane	117		0	70-130	%REC	222671	1	04/15/2016 01:22	NP
Surr: Toluene-d8	90.3		0	70-130	%REC	222671	1	04/15/2016 01:22	NP
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	2520		5.87	50.0	ug/L	222745	1	04/19/2016 18:30	JS
Antimony	0.238	J	0.151	5.00	ug/L	222745	1	04/19/2016 18:30	JS
Arsenic	0.219	J	0.125	5.00	ug/L	222745	1	04/19/2016 18:30	JS
Barium	213		0.180	10.0	ug/L	222745	1	04/19/2016 18:30	JS
Beryllium	0.495	J	0.178	1.00	ug/L	222745	1	04/19/2016 18:30	JS
Cadmium	BRL		0.184	0.700	ug/L	222745	1	04/19/2016 18:30	JS
Calcium	1030		12.7	100	ug/L	222745	1	04/19/2016 18:30	JS
Chromium	5.96		0.137	5.00	ug/L	222745	1	04/19/2016 18:30	JS
Cobalt	3.83	J	0.155	5.00	ug/L	222745	1	04/19/2016 18:30	JS
Copper	1.43	J	0.228	2.00	ug/L	222745	1	04/19/2016 18:30	JS
Iron	2130		31.9	100	ug/L	222745	1	04/19/2016 18:30	JS
Lead	7.03		0.143	1.00	ug/L	222745	1	04/19/2016 18:30	JS
Magnesium	3260		1.90	100	ug/L	222745	1	04/19/2016 18:30	JS
Manganese	44.9		0.508	5.00	ug/L	222745	1	04/19/2016 18:30	JS
Nickel	2.42	J	0.132	5.00	ug/L	222745	1	04/19/2016 18:30	JS
Potassium	3780		2.55	100	ug/L	222745	1	04/19/2016 18:30	JS
Selenium	0.164	J	0.159	5.00	ug/L	222745	1	04/19/2016 18:30	JS
Silver	0.0540	J	0.0163	1.00	ug/L	222745	1	04/19/2016 18:30	JS
Sodium	13700		14.2	500	ug/L	222745	1	04/19/2016 18:30	JS
Thallium	0.177	J	0.127	1.00	ug/L	222745	1	04/19/2016 18:30	JS
Vanadium	3.62	J	0.130	5.00	ug/L	222745	1	04/19/2016 18:30	JS
Zinc	20.2		3.92	10.0	ug/L	222745	1	04/19/2016 18:30	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0316		0.00380	0.0100	mg/L	R314592	1	04/13/2016 19:22	AM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-004
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 2:20:00 PM
Lab ID:	1604A26-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R314856	1	04/18/2016 17:31	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222548	1	04/15/2016 05:42	AW
Surr: 4-Bromofluorobenzene	96.8		0	64.9-131	%REC	222548	1	04/15/2016 05:42	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	0.00007	J	0.00007	0.00020	mg/L	222715	1	04/18/2016 15:18	JR
ION SCAN SW9056A									
Nitrate	4.2		0.024	0.25	mg/L	R314721	1	04/13/2016 13:13	JW
Sulfate	13		0.10	1.0	mg/L	R314721	1	04/13/2016 13:13	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	222808	1	04/19/2016 15:59	JS
Manganese	27.3		0.508	5.00	ug/L	222808	1	04/19/2016 15:59	JS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-005
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 4:10:00 PM
Lab ID:	1604A26-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222671	1	04/15/2016 03:45	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 03:45	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/15/2016 03:45	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/15/2016 03:45	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/15/2016 03:45	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/15/2016 03:45	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/15/2016 03:45	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/15/2016 03:45	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/15/2016 03:45	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Chloroform	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/15/2016 03:45	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222671	1	04/15/2016 03:45	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/15/2016 03:45	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/15/2016 03:45	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/15/2016 03:45	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/15/2016 03:45	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/15/2016 03:45	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-005
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 4:10:00 PM
Lab ID:	1604A26-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Tetrachloroethene	14		0.29	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 03:45	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/15/2016 03:45	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/15/2016 03:45	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 03:45	NP
Surr: 4-Bromofluorobenzene	82.2		0	70-130	%REC	222671	1	04/15/2016 03:45	NP
Surr: Dibromofluoromethane	114		0	70-130	%REC	222671	1	04/15/2016 03:45	NP
Surr: Toluene-d8	90.3		0	70-130	%REC	222671	1	04/15/2016 03:45	NP
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	847		5.87	50.0	ug/L	222745	1	04/19/2016 18:36	JS
Antimony	0.255	J	0.151	5.00	ug/L	222745	1	04/19/2016 18:36	JS
Arsenic	0.206	J	0.125	5.00	ug/L	222745	1	04/19/2016 18:36	JS
Barium	182		0.180	10.0	ug/L	222745	1	04/19/2016 18:36	JS
Beryllium	0.304	J	0.178	1.00	ug/L	222745	1	04/19/2016 18:36	JS
Cadmium	0.602	J	0.184	0.700	ug/L	222745	1	04/19/2016 18:36	JS
Calcium	1330		12.7	100	ug/L	222745	1	04/19/2016 18:36	JS
Chromium	0.951	J	0.137	5.00	ug/L	222745	1	04/19/2016 18:36	JS
Cobalt	11.6		0.155	5.00	ug/L	222745	1	04/19/2016 18:36	JS
Copper	1.84	J	0.228	2.00	ug/L	222745	1	04/19/2016 18:36	JS
Iron	643		31.9	100	ug/L	222745	1	04/19/2016 18:36	JS
Lead	2.97		0.143	1.00	ug/L	222745	1	04/19/2016 18:36	JS
Magnesium	2410		1.90	100	ug/L	222745	1	04/19/2016 18:36	JS
Manganese	655		0.508	5.00	ug/L	222745	1	04/19/2016 18:36	JS
Nickel	5.55		0.132	5.00	ug/L	222745	1	04/19/2016 18:36	JS
Potassium	4670		2.55	100	ug/L	222745	1	04/19/2016 18:36	JS
Selenium	0.906	J	0.159	5.00	ug/L	222745	1	04/19/2016 18:36	JS
Silver	BRL		0.0163	1.00	ug/L	222745	1	04/19/2016 18:36	JS
Sodium	6380		14.2	500	ug/L	222745	1	04/19/2016 18:36	JS
Thallium	0.631	J	0.127	1.00	ug/L	222745	1	04/19/2016 18:36	JS
Vanadium	0.813	J	0.130	5.00	ug/L	222745	1	04/19/2016 18:36	JS
Zinc	27.0		3.92	10.0	ug/L	222745	1	04/19/2016 18:36	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	BRL		0.00380	0.0100	mg/L	R314592	1	04/13/2016 19:24	AM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-MRB-005
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 4:10:00 PM
Lab ID:	1604A26-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R314856	1	04/18/2016 17:32	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222548	1	04/15/2016 06:11	AW
Surr: 4-Bromofluorobenzene	97.8		0	64.9-131	%REC	222548	1	04/15/2016 06:11	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00007	0.00020	mg/L	222715	1	04/18/2016 15:20	JR
ION SCAN SW9056A									
Nitrate	2.9		0.024	0.25	mg/L	R314721	1	04/13/2016 13:28	JW
Sulfate	10		0.10	1.0	mg/L	R314721	1	04/13/2016 13:28	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	222808	1	04/19/2016 16:25	JS
Manganese	634		0.508	5.00	ug/L	222808	1	04/19/2016 16:25	JS

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-101
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 9:25:00 AM
Lab ID:	1604A26-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222671	1	04/15/2016 04:09	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 04:09	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/15/2016 04:09	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/15/2016 04:09	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/15/2016 04:09	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/15/2016 04:09	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/15/2016 04:09	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/15/2016 04:09	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/15/2016 04:09	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Chloroform	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/15/2016 04:09	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222671	1	04/15/2016 04:09	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/15/2016 04:09	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/15/2016 04:09	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/15/2016 04:09	NP
Methyl tert-butyl ether	1.3		0.22	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/15/2016 04:09	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/15/2016 04:09	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-101
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 9:25:00 AM
Lab ID:	1604A26-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Tetrachloroethene	600		2.9	10	ug/L	222671	10	04/15/2016 13:44	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 04:09	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/15/2016 04:09	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/15/2016 04:09	NP
Trichloroethene	2.6		0.35	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 04:09	NP
Surr: 4-Bromofluorobenzene	83.9		0	70-130	%REC	222671	10	04/15/2016 13:44	NP
Surr: 4-Bromofluorobenzene	84.3		0	70-130	%REC	222671	1	04/15/2016 04:09	NP
Surr: Dibromofluoromethane	116		0	70-130	%REC	222671	1	04/15/2016 04:09	NP
Surr: Dibromofluoromethane	116		0	70-130	%REC	222671	10	04/15/2016 13:44	NP
Surr: Toluene-d8	87.4		0	70-130	%REC	222671	10	04/15/2016 13:44	NP
Surr: Toluene-d8	90.4		0	70-130	%REC	222671	1	04/15/2016 04:09	NP
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	11700		5.87	50.0	ug/L	222745	1	04/19/2016 18:42	JS
Antimony	0.327	J	0.151	5.00	ug/L	222745	1	04/19/2016 18:42	JS
Arsenic	5.96		0.125	5.00	ug/L	222745	1	04/19/2016 18:42	JS
Barium	388		0.180	10.0	ug/L	222745	1	04/19/2016 18:42	JS
Beryllium	0.763	J	0.178	1.00	ug/L	222745	1	04/19/2016 18:42	JS
Cadmium	0.535	J	0.184	0.700	ug/L	222745	1	04/19/2016 18:42	JS
Calcium	1920		12.7	100	ug/L	222745	1	04/19/2016 18:42	JS
Chromium	20.0		0.137	5.00	ug/L	222745	1	04/19/2016 18:42	JS
Cobalt	4.83	J	0.155	5.00	ug/L	222745	1	04/19/2016 18:42	JS
Copper	2.21		0.228	2.00	ug/L	222745	1	04/19/2016 18:42	JS
Iron	8850		31.9	100	ug/L	222745	1	04/19/2016 18:42	JS
Lead	8.04		0.143	1.00	ug/L	222745	1	04/19/2016 18:42	JS
Magnesium	4150		1.90	100	ug/L	222745	1	04/19/2016 18:42	JS
Manganese	754		0.508	5.00	ug/L	222745	1	04/19/2016 18:42	JS
Nickel	14.3		0.132	5.00	ug/L	222745	1	04/19/2016 18:42	JS
Potassium	3880		2.55	100	ug/L	222745	1	04/19/2016 18:42	JS
Selenium	0.313	J	0.159	5.00	ug/L	222745	1	04/19/2016 18:42	JS
Silver	0.0330	J	0.0163	1.00	ug/L	222745	1	04/19/2016 18:42	JS
Sodium	42600		14.2	500	ug/L	222745	1	04/19/2016 18:42	JS
Thallium	0.234	J	0.127	1.00	ug/L	222745	1	04/19/2016 18:42	JS
Vanadium	77.6		0.130	5.00	ug/L	222745	1	04/19/2016 18:42	JS
Zinc	52.7		3.92	10.0	ug/L	222745	1	04/19/2016 18:42	JS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-101
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 9:25:00 AM
Lab ID:	1604A26-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	7.63		0.380	1.00	mg/L	R314592	100	04/13/2016 19:56	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R314856	1	04/18/2016 17:38	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222548	1	04/15/2016 06:39	AW
Surr: 4-Bromofluorobenzene	89.3		0	64.9-131	%REC	222548	1	04/15/2016 06:39	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00007	0.00020	mg/L	222715	1	04/18/2016 15:26	JR
ION SCAN SW9056A									
Nitrate	5.8		0.024	0.25	mg/L	R314721	1	04/13/2016 13:43	JW
Sulfate	10		0.10	1.0	mg/L	R314721	1	04/13/2016 13:43	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	222808	1	04/19/2016 16:31	JS
Manganese	2.04	J	0.508	5.00	ug/L	222808	1	04/19/2016 16:31	JS

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016
Lab ID:	1604A26-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222671	1	04/14/2016 23:24	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/14/2016 23:24	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/14/2016 23:24	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/14/2016 23:24	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/14/2016 23:24	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/14/2016 23:24	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/14/2016 23:24	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/14/2016 23:24	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/14/2016 23:24	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Chloroform	BRL		0.30	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/14/2016 23:24	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222671	1	04/14/2016 23:24	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/14/2016 23:24	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/14/2016 23:24	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/14/2016 23:24	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/14/2016 23:24	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/14/2016 23:24	NP

Qualifiers:

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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016
Lab ID:	1604A26-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/14/2016 23:24	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/14/2016 23:24	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/14/2016 23:24	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/14/2016 23:24	NP
Surr: 4-Bromofluorobenzene	85		0	70-130	%REC	222671	1	04/14/2016 23:24	NP
Surr: Dibromofluoromethane	121		0	70-130	%REC	222671	1	04/14/2016 23:24	NP
Surr: Toluene-d8	89.7		0	70-130	%REC	222671	1	04/14/2016 23:24	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
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- NC Not confirmed
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- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client GHD Work Order Number 1604A26

Checklist completed by [signature] 4-13-16
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes ✓	No __	Not Present __
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (0°≤6°C)*	Yes ✓	No __	

Cooler #1 1.3 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __	
Chain of custody signed when relinquished and received?	Yes ✓	No __	
Chain of custody agrees with sample labels?	Yes ✓	No __	
Samples in proper container/bottle?	Yes ✓	No __	
Sample containers intact?	Yes ✓	No __	
Sufficient sample volume for indicated test?	Yes ✓	No __	
All samples received within holding time?	Yes ✓	No __	
Was TAT marked on the COC?	Yes ✓	No __	
Proceed with Standard TAT as per project history?	Yes __	No __	Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓	No __
Water - pH acceptable upon receipt?	Yes ✓	No __	Not Applicable __

Adjusted? _____ Checked by CJ

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\l\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1604A26

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604A26-001A	GW-013926-041216-MRB-001	4/12/2016 9:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/15/2016
1604A26-001B	GW-013926-041216-MRB-001	4/12/2016 9:25:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/15/2016
1604A26-001C	GW-013926-041216-MRB-001	4/12/2016 9:25:00AM	Groundwater	Total Metals by ICP/MS		4/18/2016 3:25:00 PM	04/19/2016
1604A26-001C	GW-013926-041216-MRB-001	4/12/2016 9:25:00AM	Groundwater	TOTAL MERCURY		4/18/2016 10:30:00 AM	04/18/2016
1604A26-001D	GW-013926-041216-MRB-001	4/12/2016 9:25:00AM	Groundwater	ION SCAN			04/13/2016
1604A26-001E	GW-013926-041216-MRB-001	4/12/2016 9:25:00AM	Groundwater	Dissolved Metals by ICP/MS		4/19/2016 11:44:29 AM	04/19/2016
1604A26-001F	GW-013926-041216-MRB-001	4/12/2016 9:25:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/18/2016
1604A26-001G	GW-013926-041216-MRB-001	4/12/2016 9:25:00AM	Groundwater	Phosphorus, ortho			04/13/2016
1604A26-002A	GW-013926-041216-MRB-002	4/12/2016 11:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/15/2016
1604A26-002B	GW-013926-041216-MRB-002	4/12/2016 11:15:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/15/2016
1604A26-002C	GW-013926-041216-MRB-002	4/12/2016 11:15:00AM	Groundwater	Total Metals by ICP/MS		4/18/2016 3:25:00 PM	04/19/2016
1604A26-002C	GW-013926-041216-MRB-002	4/12/2016 11:15:00AM	Groundwater	TOTAL MERCURY		4/18/2016 10:30:00 AM	04/18/2016
1604A26-002D	GW-013926-041216-MRB-002	4/12/2016 11:15:00AM	Groundwater	ION SCAN			04/13/2016
1604A26-002E	GW-013926-041216-MRB-002	4/12/2016 11:15:00AM	Groundwater	Dissolved Metals by ICP/MS		4/19/2016 11:44:29 AM	04/19/2016
1604A26-002F	GW-013926-041216-MRB-002	4/12/2016 11:15:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/18/2016
1604A26-002G	GW-013926-041216-MRB-002	4/12/2016 11:15:00AM	Groundwater	Phosphorus, ortho			04/13/2016
1604A26-003A	GW-013926-041216-MRB-003	4/12/2016 11:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/15/2016
1604A26-003B	GW-013926-041216-MRB-003	4/12/2016 11:30:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/15/2016
1604A26-003C	GW-013926-041216-MRB-003	4/12/2016 11:30:00AM	Groundwater	Total Metals by ICP/MS		4/18/2016 3:25:00 PM	04/19/2016
1604A26-003C	GW-013926-041216-MRB-003	4/12/2016 11:30:00AM	Groundwater	TOTAL MERCURY		4/18/2016 10:30:00 AM	04/18/2016
1604A26-003D	GW-013926-041216-MRB-003	4/12/2016 11:30:00AM	Groundwater	ION SCAN			04/13/2016
1604A26-003E	GW-013926-041216-MRB-003	4/12/2016 11:30:00AM	Groundwater	Dissolved Metals by ICP/MS		4/19/2016 11:44:29 AM	04/19/2016
1604A26-003F	GW-013926-041216-MRB-003	4/12/2016 11:30:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/18/2016
1604A26-003G	GW-013926-041216-MRB-003	4/12/2016 11:30:00AM	Groundwater	Phosphorus, ortho			04/13/2016
1604A26-004A	GW-013926-041216-MRB-004	4/12/2016 2:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/15/2016
1604A26-004B	GW-013926-041216-MRB-004	4/12/2016 2:20:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/15/2016
1604A26-004C	GW-013926-041216-MRB-004	4/12/2016 2:20:00PM	Groundwater	Total Metals by ICP/MS		4/18/2016 3:25:00 PM	04/19/2016
1604A26-004C	GW-013926-041216-MRB-004	4/12/2016 2:20:00PM	Groundwater	TOTAL MERCURY		4/18/2016 10:30:00 AM	04/18/2016
1604A26-004D	GW-013926-041216-MRB-004	4/12/2016 2:20:00PM	Groundwater	ION SCAN			04/13/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1604A26

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604A26-004E	GW-013926-041216-MRB-004	4/12/2016 2:20:00PM	Groundwater	Dissolved Metals by ICP/MS		4/19/2016 11:44:29 AM	04/19/2016
1604A26-004F	GW-013926-041216-MRB-004	4/12/2016 2:20:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/18/2016
1604A26-004G	GW-013926-041216-MRB-004	4/12/2016 2:20:00PM	Groundwater	Phosphorus, ortho			04/13/2016
1604A26-005A	GW-013926-041216-MRB-005	4/12/2016 4:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/15/2016
1604A26-005B	GW-013926-041216-MRB-005	4/12/2016 4:10:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/15/2016
1604A26-005C	GW-013926-041216-MRB-005	4/12/2016 4:10:00PM	Groundwater	Total Metals by ICP/MS		4/18/2016 3:25:00 PM	04/19/2016
1604A26-005C	GW-013926-041216-MRB-005	4/12/2016 4:10:00PM	Groundwater	TOTAL MERCURY		4/18/2016 10:30:00 AM	04/18/2016
1604A26-005D	GW-013926-041216-MRB-005	4/12/2016 4:10:00PM	Groundwater	ION SCAN			04/13/2016
1604A26-005E	GW-013926-041216-MRB-005	4/12/2016 4:10:00PM	Groundwater	Dissolved Metals by ICP/MS		4/19/2016 11:44:29 AM	04/19/2016
1604A26-005F	GW-013926-041216-MRB-005	4/12/2016 4:10:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/18/2016
1604A26-005G	GW-013926-041216-MRB-005	4/12/2016 4:10:00PM	Groundwater	Phosphorus, ortho			04/13/2016
1604A26-006A	GW-013926-041216-SAG-101	4/12/2016 9:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/15/2016
1604A26-006B	GW-013926-041216-SAG-101	4/12/2016 9:25:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/15/2016
1604A26-006C	GW-013926-041216-SAG-101	4/12/2016 9:25:00AM	Groundwater	Total Metals by ICP/MS		4/18/2016 3:25:00 PM	04/19/2016
1604A26-006C	GW-013926-041216-SAG-101	4/12/2016 9:25:00AM	Groundwater	TOTAL MERCURY		4/18/2016 10:30:00 AM	04/18/2016
1604A26-006D	GW-013926-041216-SAG-101	4/12/2016 9:25:00AM	Groundwater	ION SCAN			04/13/2016
1604A26-006E	GW-013926-041216-SAG-101	4/12/2016 9:25:00AM	Groundwater	Dissolved Metals by ICP/MS		4/19/2016 11:44:29 AM	04/19/2016
1604A26-006F	GW-013926-041216-SAG-101	4/12/2016 9:25:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/18/2016
1604A26-006G	GW-013926-041216-SAG-101	4/12/2016 9:25:00AM	Groundwater	Phosphorus, ortho			04/13/2016
1604A26-007A	TRIP BLANK	4/13/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/14/2016
1604A26-007B	TRIP BLANK	4/13/2016 12:00:00AM	Aqueous	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/15/2016

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222548

Sample ID: **MB-222548** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771795**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.178	0	5.000		104	64.9	131				

Sample ID: **LCS-222548** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771796**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1020	0.020	0.1000		102	60	140				
Surr: 4-Bromofluorobenzene	5.348	0	5.000		107	64.9	131				

Sample ID: **LCSD-222548** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771797**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1000	0.020	0.1000		100	60	140	0.1020	1.98	20	
Surr: 4-Bromofluorobenzene	5.269	0	5.000		105	64.9	131	5.348	0	0	

Sample ID: **1604951-001AMS** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771800**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09088	0.020	0.0988		92.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.233	0	4.939		106	64.9	131				

Sample ID: **1604A68-002CMS** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771802**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09624	0.020	0.1013		95.0	65.6	136				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222548

Sample ID: **1604A68-002CMS** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771802**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	4.785	0	5.065		94.5	64.9	131				

Sample ID: **1604A68-002CMSD** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771803**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09522	0.020	0.1002		95.0	65.6	136	0.09624	1.07	20	
Surr: 4-Bromofluorobenzene	5.034	0	5.011		100	64.9	131	4.785	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **MB-222671** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/14/2016** Seq No: **6771638**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **MB-222671** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/14/2016** Seq No: **6771638**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	41.87	0	50.00		83.7	70	130				
Surr: Dibromofluoromethane	57.71	0	50.00		115	70	130				
Surr: Toluene-d8	44.57	0	50.00		89.1	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **LCS-222671** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/14/2016** Seq No: **6771637**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.42	1.0	50.00		119	70	130				
1,1,2,2-Tetrachloroethane	45.05	1.0	50.00		90.1	70	130				
1,1,2-Trichloroethane	54.83	1.0	50.00		110	70	130				
1,1-Dichloroethane	48.69	1.0	50.00		97.4	70	130				
1,1-Dichloroethene	52.98	2.0	50.00		106	60	140				
1,2,4-Trichlorobenzene	53.15	1.0	50.00		106	70	130				
1,2-Dibromo-3-chloropropane	53.44	1.0	50.00		107	70	130				
1,2-Dichlorobenzene	50.53	1.0	50.00		101	70	130				
1,2-Dichloroethane	60.87	1.0	50.00		122	70	130				
1,2-Dichloropropane	52.79	1.0	50.00		106	70	130				
1,3-Dichlorobenzene	49.19	1.0	50.00		98.4	70	130				
1,4-Dichlorobenzene	49.11	1.0	50.00		98.2	70	130				
Benzene	51.19	1.0	50.00		102	70	130				
Bromodichloromethane	53.20	1.0	50.00		106	70	130				
Bromoform	60.77	1.0	50.00		122	70	130				
Carbon tetrachloride	64.71	2.0	50.00		129	70	130				
Chlorobenzene	53.75	1.0	50.00		108	70	130				
Chloroform	56.19	1.0	50.00		112	70	130				
cis-1,2-Dichloroethene	48.31	1.0	50.00		96.6	70	130				
cis-1,3-Dichloropropene	52.91	1.0	50.00		106	70	130				
Dibromochloromethane	57.66	1.0	50.00		115	70	130				
Ethylbenzene	54.37	1.0	50.00		109	70	130				
Isopropylbenzene	47.03	1.0	50.00		94.1	70	130				
Methylene chloride	48.55	5.0	50.00		97.1	70	130				
Styrene	54.72	1.0	50.00		109	70	130				
Tetrachloroethene	62.38	1.0	50.00		125	70	130				
Toluene	51.44	1.0	50.00		103	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **LCS-222671** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/14/2016** Seq No: **6771637**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	48.49	2.0	50.00		97.0	70	130				
trans-1,3-Dichloropropene	61.93	2.0	50.00		124	70	130				
Trichloroethene	61.56	1.0	50.00		123	70	130				
Vinyl chloride	56.44	1.0	50.00		113	70	130				
Xylenes, Total	163.8	1.0	150.0		109	70	130				
Surr: 4-Bromofluorobenzene	51.74	0	50.00		103	70	130				
Surr: Dibromofluoromethane	54.56	0	50.00		109	70	130				
Surr: Toluene-d8	46.78	0	50.00		93.6	70	130				

Sample ID: **1604A68-002AMS** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/15/2016** Seq No: **6771663**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	63.40	1.0	50.00		127	64.5	140				
1,1,2,2-Tetrachloroethane	51.40	1.0	50.00	4.150	94.5	66.5	128				
1,1,2-Trichloroethane	58.70	1.0	50.00		117	73.9	127				
1,1-Dichloroethane	52.83	1.0	50.00	2.280	101	61.6	127				
1,1-Dichloroethene	56.53	2.0	50.00	1.750	110	60	150				
1,2,4-Trichlorobenzene	46.68	1.0	50.00		93.4	60.4	131				
1,2-Dibromo-3-chloropropane	50.69	1.0	50.00		101	50.2	131				
1,2-Dichlorobenzene	49.85	1.0	50.00		99.7	72	123				
1,2-Dichloroethane	64.76	1.0	50.00		130	66.5	133				
1,2-Dichloropropane	54.87	1.0	50.00		110	73	126				
1,3-Dichlorobenzene	49.36	1.0	50.00		98.7	72.5	123				
1,4-Dichlorobenzene	48.47	1.0	50.00		96.9	71.1	121				
Benzene	54.36	1.0	50.00		109	70.1	132				
Bromodichloromethane	57.55	1.0	50.00		115	62.2	131				
Bromoform	62.18	1.0	50.00		124	50.5	138				

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **1604A68-002AMS** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/15/2016** Seq No: **6771663**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Carbon tetrachloride	74.28	2.0	50.00		149	60	149				
Chlorobenzene	55.73	1.0	50.00		111	70.9	131				
Chloroform	60.28	1.0	50.00	1.420	118	67.7	128				
cis-1,2-Dichloroethene	125.4	1.0	50.00	69.49	112	68.8	133				
cis-1,3-Dichloropropene	54.94	1.0	50.00		110	53.8	134				
Dibromochloromethane	58.66	1.0	50.00		117	57	135				
Ethylbenzene	55.22	1.0	50.00		110	77.8	129				
Isopropylbenzene	47.68	1.0	50.00		95.4	63	132				
Methylene chloride	51.87	5.0	50.00		104	60.5	124				
Styrene	46.01	1.0	50.00		92.0	73.3	133				
Tetrachloroethene	90.69	1.0	50.00	27.04	127	69.6	140				
Toluene	54.46	1.0	50.00		109	70.1	133				
trans-1,2-Dichloroethene	49.56	2.0	50.00		99.1	63.7	127				
trans-1,3-Dichloropropene	63.96	2.0	50.00		128	56.2	127				S
Trichloroethene	207.2	1.0	50.00	140.5	133	70	136				E
Vinyl chloride	56.15	1.0	50.00		112	56.8	141				
Xylenes, Total	167.9	1.0	150.0		112	74.7	133				
Surr: 4-Bromofluorobenzene	51.66	0	50.00		103	70	130				
Surr: Dibromofluoromethane	56.81	0	50.00		114	70	130				
Surr: Toluene-d8	47.40	0	50.00		94.8	70	130				

Sample ID: **1604A68-002AMSD** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/15/2016** Seq No: **6771664**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.69	1.0	50.00		119	64.5	140	63.40	6.03	20	
1,1,2,2-Tetrachloroethane	50.08	1.0	50.00	4.150	91.9	66.5	128	51.40	2.60	20	
1,1,2-Trichloroethane	57.11	1.0	50.00		114	73.9	127	58.70	2.75	20	

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **1604A68-002AMSD** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/15/2016** Seq No: **6771664**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethane	49.66	1.0	50.00	2.280	94.8	61.6	127	52.83	6.19	20	
1,1-Dichloroethene	54.52	2.0	50.00	1.750	106	60	150	56.53	3.62	17.7	
1,2,4-Trichlorobenzene	47.26	1.0	50.00		94.5	60.4	131	46.68	1.23	24	
1,2-Dibromo-3-chloropropane	51.44	1.0	50.00		103	50.2	131	50.69	1.47	19.5	
1,2-Dichlorobenzene	50.19	1.0	50.00		100	72	123	49.85	0.680	20	
1,2-Dichloroethane	62.47	1.0	50.00		125	66.5	133	64.76	3.60	20	
1,2-Dichloropropane	53.18	1.0	50.00		106	73	126	54.87	3.13	20	
1,3-Dichlorobenzene	48.97	1.0	50.00		97.9	72.5	123	49.36	0.793	20	
1,4-Dichlorobenzene	48.47	1.0	50.00		96.9	71.1	121	48.47	0	20	
Benzene	52.98	1.0	50.00		106	70.1	132	54.36	2.57	20	
Bromodichloromethane	55.66	1.0	50.00		111	62.2	131	57.55	3.34	20	
Bromoform	60.54	1.0	50.00		121	50.5	138	62.18	2.67	17.9	
Carbon tetrachloride	71.56	2.0	50.00		143	60	149	74.28	3.73	20	
Chlorobenzene	53.83	1.0	50.00		108	70.9	131	55.73	3.47	20	
Chloroform	56.29	1.0	50.00	1.420	110	67.7	128	60.28	6.85	20	
cis-1,2-Dichloroethene	118.4	1.0	50.00	69.49	97.9	68.8	133	125.4	5.72	20	
cis-1,3-Dichloropropene	53.94	1.0	50.00		108	53.8	134	54.94	1.84	20	
Dibromochloromethane	56.95	1.0	50.00		114	57	135	58.66	2.96	20	
Ethylbenzene	53.50	1.0	50.00		107	77.8	129	55.22	3.16	20	
Isopropylbenzene	47.05	1.0	50.00		94.1	63	132	47.68	1.33	20	
Methylene chloride	49.11	5.0	50.00		98.2	60.5	124	51.87	5.47	17.4	
Styrene	45.13	1.0	50.00		90.3	73.3	133	46.01	1.93	20	
Tetrachloroethene	89.04	1.0	50.00	27.04	124	69.6	140	90.69	1.84	20	
Toluene	51.89	1.0	50.00		104	70.1	133	54.46	4.83	20	
trans-1,2-Dichloroethene	48.17	2.0	50.00		96.3	63.7	127	49.56	2.84	20	
trans-1,3-Dichloropropene	62.93	2.0	50.00		126	56.2	127	63.96	1.62	20	
Trichloroethene	203.2	1.0	50.00	140.5	125	70	136	207.2	1.94	20	E

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **1604A68-002AMSD** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/15/2016** Seq No: **6771664**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Vinyl chloride	52.90	1.0	50.00		106	56.8	141	56.15	5.96	18.4	
Xylenes, Total	162.8	1.0	150.0		109	74.7	133	167.9	3.05	22.7	
Surr: 4-Bromofluorobenzene	51.08	0	50.00		102	70	130	51.66	0	0	
Surr: Dibromofluoromethane	56.34	0	50.00		113	70	130	56.81	0	0	
Surr: Toluene-d8	48.07	0	50.00		96.1	70	130	47.40	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222745

Sample ID: **MB-222745** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779196**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	BRL	50.0									
Antimony	BRL	5.00									
Arsenic	BRL	5.00									
Barium	BRL	10.0									
Beryllium	BRL	1.00									
Cadmium	BRL	0.700									
Calcium	BRL	100									
Chromium	BRL	5.00									
Cobalt	BRL	5.00									
Copper	BRL	2.00									
Iron	BRL	100									
Lead	BRL	1.00									
Magnesium	BRL	100									
Manganese	BRL	5.00									
Nickel	BRL	5.00									
Potassium	BRL	100									
Selenium	BRL	5.00									
Silver	BRL	1.00									
Sodium	BRL	500									
Thallium	BRL	1.00									
Vanadium	BRL	5.00									
Zinc	BRL	10.0									

Sample ID: **LCS-222745** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779197**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	1028	50.0	1000		103	80	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222745

Sample ID: **LCS-222745** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779197**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	103.3	5.00	100.0	0.1780	103	80	120				
Arsenic	104.3	5.00	100.0		104	80	120				
Barium	103.8	10.0	100.0		104	80	120				
Beryllium	103.5	1.00	100.0		104	80	120				
Cadmium	105.9	0.700	100.0		106	80	120				
Calcium	1028	100	1000		103	80	120				
Chromium	111.9	5.00	100.0	0.1600	112	80	120				
Cobalt	104.7	5.00	100.0		105	80	120				
Copper	105.1	2.00	100.0		105	80	120				
Iron	1067	100	1000		107	80	120				
Lead	112.4	1.00	100.0		112	80	120				
Magnesium	1027	100	1000	5.725	102	80	120				
Manganese	104.4	5.00	100.0		104	80	120				
Nickel	106.9	5.00	100.0		107	80	120				
Potassium	1064	100	1000		106	80	120				
Selenium	104.5	5.00	100.0		104	80	120				
Silver	10.65	1.00	10.00	0.03700	106	80	120				
Sodium	1068	500	1000	29.79	104	80	120				
Thallium	112.4	1.00	100.0		112	80	120				
Vanadium	102.4	5.00	100.0		102	80	120				
Zinc	112.5	10.0	100.0		112	80	120				

Sample ID: **1604A68-002EMS** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779199**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	1007	50.0	1000	125.5	88.2	75	125				
Antimony	97.26	5.00	100.0	0.2590	97.0	75	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222745

Sample ID: **1604A68-002EMS** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779199**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	98.46	5.00	100.0	0.3710	98.1	75	125				
Barium	160.9	10.0	100.0	61.53	99.4	75	125				
Beryllium	99.09	1.00	100.0		99.1	75	125				
Cadmium	100.5	0.700	100.0		100	75	125				
Calcium	6380	100	1000	5395	98.5	75	125				
Chromium	103.6	5.00	100.0	0.3880	103	75	125				
Cobalt	97.27	5.00	100.0	0.1620	97.1	75	125				
Copper	98.88	2.00	100.0		98.9	75	125				
Iron	1016	100	1000		102	75	125				
Lead	106.3	1.00	100.0	0.2070	106	75	125				
Magnesium	2288	100	1000	1287	100	75	125				
Manganese	169.5	5.00	100.0	67.65	102	75	125				
Nickel	98.94	5.00	100.0	0.2170	98.7	75	125				
Potassium	2940	100	1000	1930	101	75	125				
Selenium	99.83	5.00	100.0	0.9810	98.8	75	125				
Silver	9.986	1.00	10.00	0.02800	99.6	75	125				
Sodium	5820	500	1000	4807	101	75	125				
Thallium	106.3	1.00	100.0	0.2570	106	75	125				
Vanadium	95.58	5.00	100.0	0.5350	95.0	75	125				
Zinc	118.0	10.0	100.0	9.912	108	75	125				

Sample ID: **1604A68-002EMSD** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779200**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	1000	50.0	1000	125.5	87.4	75	125	1007	0.698	20	
Antimony	96.86	5.00	100.0	0.2590	96.6	75	125	97.26	0.412	20	
Arsenic	98.08	5.00	100.0	0.3710	97.7	75	125	98.46	0.387	20	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222745

Sample ID: **1604A68-002EMSD** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779200**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Barium	158.3	10.0	100.0	61.53	96.8	75	125	160.9	1.63	20	
Beryllium	98.00	1.00	100.0		98.0	75	125	99.09	1.11	20	
Cadmium	100.2	0.700	100.0		100	75	125	100.5	0.299	20	
Calcium	6233	100	1000	5395	83.8	75	125	6380	2.33	20	
Chromium	104.4	5.00	100.0	0.3880	104	75	125	103.6	0.769	20	
Cobalt	97.01	5.00	100.0	0.1620	96.8	75	125	97.27	0.268	20	
Copper	98.08	2.00	100.0		98.1	75	125	98.88	0.812	20	
Iron	1009	100	1000		101	75	125	1016	0.691	20	
Lead	106.3	1.00	100.0	0.2070	106	75	125	106.3	0	20	
Magnesium	2247	100	1000	1287	96.0	75	125	2288	1.81	20	
Manganese	167.8	5.00	100.0	67.65	100	75	125	169.5	1.01	20	
Nickel	98.24	5.00	100.0	0.2170	98.0	75	125	98.94	0.710	20	
Potassium	2896	100	1000	1930	96.6	75	125	2940	1.51	20	
Selenium	99.47	5.00	100.0	0.9810	98.5	75	125	99.83	0.361	20	
Silver	9.915	1.00	10.00	0.02800	98.9	75	125	9.986	0.714	20	
Sodium	5682	500	1000	4807	87.5	75	125	5820	2.40	20	
Thallium	106.2	1.00	100.0	0.2570	106	75	125	106.3	0.094	20	
Vanadium	96.28	5.00	100.0	0.5350	95.7	75	125	95.58	0.730	20	
Zinc	123.5	10.0	100.0	9.912	114	75	125	118.0	4.55	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: 222808

Sample ID: **MB-222808** Client ID: Units: **ug/L** Prep Date: **04/19/2016** Run No: **314995**
SampleType: **MBLK** TestCode: **Dissolved Metals by ICP/MS SW6020A** BatchID: **222808** Analysis Date: **04/19/2016** Seq No: **6779171**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	BRL	100									
Manganese	BRL	5.00									

Sample ID: **LCS-222808** Client ID: Units: **ug/L** Prep Date: **04/19/2016** Run No: **314995**
SampleType: **LCS** TestCode: **Dissolved Metals by ICP/MS SW6020A** BatchID: **222808** Analysis Date: **04/19/2016** Seq No: **6779172**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	1018	100	1000		102	80	120				
Manganese	100.1	5.00	100.0		100	80	120				

Sample ID: **1604A26-001EMS** Client ID: **GW-013926-041216-MRB-001** Units: **ug/L** Prep Date: **04/19/2016** Run No: **314995**
SampleType: **MS** TestCode: **Dissolved Metals by ICP/MS SW6020A** BatchID: **222808** Analysis Date: **04/19/2016** Seq No: **6779174**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	950.2	100	1000		95.0	75	125				
Manganese	101.9	5.00	100.0	9.826	92.1	75	125				

Sample ID: **1604A26-001EMSD** Client ID: **GW-013926-041216-MRB-001** Units: **ug/L** Prep Date: **04/19/2016** Run No: **314995**
SampleType: **MSD** TestCode: **Dissolved Metals by ICP/MS SW6020A** BatchID: **222808** Analysis Date: **04/19/2016** Seq No: **6779175**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	1271	100	1000		127	75	125	950.2	28.9	20	SR
Manganese	119.9	5.00	100.0	9.826	110	75	125	101.9	16.2	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: R314592

Sample ID: **MB-R314592** Client ID: Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769227**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R314592** Client ID: Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769228**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09850	0.0100	0.1000		98.5	90	110				

Sample ID: **1604A26-005GMS** Client ID: **GW-013926-041216-MRB-005** Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769241**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09860	0.0100	0.1000		98.6	90	110				

Sample ID: **1604A68-002GMS** Client ID: Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769239**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1730	0.0100	0.1000	0.08150	91.5	90	110				

Sample ID: **1604A68-002GMSD** Client ID: Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769240**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1690	0.0100	0.1000	0.08150	87.5	90	110	0.1730	2.34	20	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: R314721

Sample ID: **MB-R314721** Client ID: Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772150**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R314721** Client ID: Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772149**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	4.969	0.25	5.000		99.4	90	110				
Sulfate	23.77	1.0	25.00		95.1	90	110				

Sample ID: **1604A26-005DMS** Client ID: **GW-013926-041216-MRB-005** Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772166**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	7.846	0.25	5.000	2.872	99.5	90	110				
Sulfate	34.61	1.0	25.00	10.36	97.0	90	110				

Sample ID: **1604A68-002FMS** Client ID: Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772162**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	5.862	0.25	5.000	0.8904	99.4	90	110				
Sulfate	24.05	1.0	25.00	0.8149	92.9	90	110				

Sample ID: **1604A68-002FMSD** Client ID: Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772163**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	5.853	0.25	5.000	0.8904	99.3	90	110	5.862	0.148	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: R314721

Sample ID: **1604A68-002FMSD** Client ID: Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772163**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfate	23.92	1.0	25.00	0.8149	92.4	90	110	24.05	0.509	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A26

ANALYTICAL QC SUMMARY REPORT

BatchID: R314856

Sample ID: **MB-R314856** Client ID: Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775977**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R314856** Client ID: Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775978**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.010	0.020	1.000		101	90	110				

Sample ID: **1604870-002AMS** Client ID: Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775981**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.060	0.020	1.000	0.02320	104	90	110				

Sample ID: **1604A68-002HMS** Client ID: Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775992**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9340	0.020	1.000		93.4	90	110				

Sample ID: **1604A68-002HMSD** Client ID: Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775993**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9210	0.020	1.000		92.1	90	110	0.9340	1.40	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

CLIENT: GHD Services, Inc.
Work Order: 1604A26
Project: Aqua-Tech Environmental

ANALYTICAL QC SUMMARY REPORT

TestCode: Mercury, Total SW7470A

Sample ID: **MB-222715** SampType: **MBLK** Batch ID: **222715** Units: **mg/L** Prep Date: **4/18/2016** RunNo: **314829**
Client ID: TestCode: **Mercury, Total SW7470A** Analysis Date: **4/18/2016** SeqNo: **6775521**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	BRL	0.000200	0	0	0	0	0	0	0		

Sample ID: **LCS-222715** SampType: **LCS** Batch ID: **222715** Units: **mg/L** Prep Date: **4/18/2016** RunNo: **314829**
Client ID: TestCode: **Mercury, Total SW7470A** Analysis Date: **4/18/2016** SeqNo: **6775523**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005356	0.000200	0.005	0	107	80	120	0	0		

Sample ID: **1604B35-001CMS** SampType: **MS** Batch ID: **222715** Units: **mg/L** Prep Date: **4/18/2016** RunNo: **314829**
Client ID: TestCode: **Mercury, Total SW7470A** Analysis Date: **4/18/2016** SeqNo: **6775530**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005708	0.000200	0.005	0	114	70	130	0	0		

Sample ID: **1604B35-001CMSD** SampType: **MSD** Batch ID: **222715** Units: **mg/L** Prep Date: **4/18/2016** RunNo: **314829**
Client ID: TestCode: **Mercury, Total SW7470A** Analysis Date: **4/18/2016** SeqNo: **6775532**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005811	0.000200	0.005	0	116	70	130	0.005708	1.79	20	

Qualifiers:

<	Less than Result value	>	Greater than Result value	B	Analyte detected in the associated Method Blank
BRL	Below Reporting Limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 21, 2016

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1604A68

Analytical Environmental Services, Inc. received 4 samples on 4/13/2016 10:30:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

CKanhai

Chantelle Kanhai
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1WUTT60

Date: 4/12/16 Page 1 of 1

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd. Suite 470 Duluth, GA 30096

PHONE: 770-441-0027

FAX: 770-441-9050

SAMPLED BY: Steven Grace

SIGNATURE:

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs + TMBs	Diss. Gasses	EDB	Alkalinity	TAL metals	Chloride, Nitrate, Sulfate	ortho P	NH_3	TOC	MS/MSD				REMARKS	No # of Containers
							PRESERVATION (See codes)														
1	GW-013926-041216-SAG-102	4/12/16	1165	X		GW	X	X	X	X	X	X	X	X	X						12
2	GW-013926-041216-SAG-103	↓	1430	X		↓	X	X	X	X	X	X	X	X	X	X					36
3	GW-013926-041216-SAG-104	↓	1620	X		↓	X	X	X	X	X	X	X	X	X						12
4	Trip Blank																				2
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	4/12/16 1800	1:	4/13/16 10:30
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS: 5.4°C
See SSOW # 13926-25-036

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Aquatech
PROJECT #: 13926
SITE ADDRESS: Robinson Rd. Greer, SC
SEND REPORT TO: See SSOW
INVOICE TO: (IF DIFFERENT FROM ABOVE) See SSOW
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers 62

Turnaround Time Request
- ⊗ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1604A68

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

Trichloroethene value for the QC sample 1604A68-002AMS/MSD is "E" qualified indicating estimated value over linear calibration range due to the level of target analyte present in the unspiked sample.

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-102
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 11:05:00 AM
Lab ID:	1604A68-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	2.6		0.25	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,1,2,2-Tetrachloroethane	16		0.24	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,1-Dichloroethane	22		0.25	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,1-Dichloroethene	25		0.36	2.0	ug/L	222671	1	04/15/2016 02:58	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,2-Dichloroethane	2.4		0.24	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 02:58	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/15/2016 02:58	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/15/2016 02:58	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/15/2016 02:58	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/15/2016 02:58	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/15/2016 02:58	NP
Benzene	0.60	J	0.14	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/15/2016 02:58	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/15/2016 02:58	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Chloroform	15		0.30	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/15/2016 02:58	NP
cis-1,2-Dichloroethene	190		2.7	10	ug/L	222671	10	04/15/2016 12:10	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/15/2016 02:58	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Freon-113	6.7		0.32	5.0	ug/L	222671	1	04/15/2016 02:58	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/15/2016 02:58	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222671	1	04/15/2016 02:58	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-102
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 11:05:00 AM
Lab ID:	1604A68-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/15/2016 02:58	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/15/2016 02:58	NP
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Tetrachloroethene	49		0.29	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 02:58	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/15/2016 02:58	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/15/2016 02:58	NP
Trichloroethene	230		3.5	10	ug/L	222671	10	04/15/2016 12:10	NP
Trichlorofluoromethane	4.0		0.32	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Vinyl chloride	1.6		0.42	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 02:58	NP
Surr: 4-Bromofluorobenzene	81.7		0	70-130	%REC	222671	10	04/15/2016 12:10	NP
Surr: 4-Bromofluorobenzene	83.9		0	70-130	%REC	222671	1	04/15/2016 02:58	NP
Surr: Dibromofluoromethane	113		0	70-130	%REC	222671	1	04/15/2016 02:58	NP
Surr: Dibromofluoromethane	117		0	70-130	%REC	222671	10	04/15/2016 12:10	NP
Surr: Toluene-d8	88.3		0	70-130	%REC	222671	10	04/15/2016 12:10	NP
Surr: Toluene-d8	91.3		0	70-130	%REC	222671	1	04/15/2016 02:58	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	9.42		0.337	1.00	mg/L	R314933	1	04/19/2016 12:14	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.432	J	0.125	5.00	ug/L	222745	1	04/19/2016 17:40	JS
Barium	184		0.180	10.0	ug/L	222745	1	04/19/2016 17:40	JS
Cadmium	0.359	J	0.184	0.700	ug/L	222745	1	04/19/2016 17:40	JS
Chromium	1.32	J	0.137	5.00	ug/L	222745	1	04/19/2016 17:40	JS
Copper	0.378	J	0.228	2.00	ug/L	222745	1	04/19/2016 17:40	JS
Iron	679		31.9	100	ug/L	222745	1	04/19/2016 17:40	JS
Lead	0.261	J	0.143	1.00	ug/L	222745	1	04/19/2016 17:40	JS
Manganese	27.2		0.508	5.00	ug/L	222745	1	04/19/2016 17:40	JS
Selenium	0.989	J	0.159	5.00	ug/L	222745	1	04/19/2016 17:40	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.147		0.00380	0.0100	mg/L	R314592	1	04/13/2016 19:27	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R314856	1	04/18/2016 17:39	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222548	1	04/15/2016 00:54	AW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-102
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 11:05:00 AM
Lab ID:	1604A68-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
Surr: 4-Bromofluorobenzene	110		0	64.9-131	%REC	222548	1	04/15/2016 00:54	AW
ION SCAN SW9056A									
Chloride	14		0.11	1.0	mg/L	R314721	1	04/13/2016 16:56	JW
Nitrate	1.6		0.024	0.25	mg/L	R314721	1	04/13/2016 16:56	JW
Sulfate	0.46	J	0.10	1.0	mg/L	R314721	1	04/13/2016 16:56	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 11:27	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 11:27	MD
Methane	12		1.2	4.0	ug/L	222729	1	04/18/2016 11:27	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	26.0		1.68	3.00	mg/L	R314814	1	04/18/2016 11:00	PF

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-103
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 2:30:00 PM
Lab ID:	1604A68-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,1,2,2-Tetrachloroethane	4.2		0.24	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,1-Dichloroethane	2.3		0.25	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,1-Dichloroethene	1.8	J	0.36	2.0	ug/L	222671	1	04/15/2016 01:46	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 01:46	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/15/2016 01:46	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/15/2016 01:46	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/15/2016 01:46	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/15/2016 01:46	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/15/2016 01:46	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/15/2016 01:46	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/15/2016 01:46	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Chloroform	1.4		0.30	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/15/2016 01:46	NP
cis-1,2-Dichloroethene	69		0.27	1.0	ug/L	222671	1	04/15/2016 01:46	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/15/2016 01:46	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/15/2016 01:46	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/15/2016 01:46	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222671	1	04/15/2016 01:46	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-103
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 2:30:00 PM
Lab ID:	1604A68-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/15/2016 01:46	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/15/2016 01:46	NP
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Tetrachloroethene	27		0.29	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 01:46	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/15/2016 01:46	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/15/2016 01:46	NP
Trichloroethene	140		0.35	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 01:46	NP
Surr: 4-Bromofluorobenzene	84.4		0	70-130	%REC	222671	1	04/15/2016 01:46	NP
Surr: Dibromofluoromethane	117		0	70-130	%REC	222671	1	04/15/2016 01:46	NP
Surr: Toluene-d8	89.7		0	70-130	%REC	222671	1	04/15/2016 01:46	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	11.2		0.337	1.00	mg/L	R314933	1	04/19/2016 12:39	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.371	J	0.125	5.00	ug/L	222745	1	04/19/2016 17:08	JS
Barium	61.5		0.180	10.0	ug/L	222745	1	04/19/2016 17:08	JS
Cadmium	BRL		0.184	0.700	ug/L	222745	1	04/19/2016 17:08	JS
Chromium	0.388	J	0.137	5.00	ug/L	222745	1	04/19/2016 17:08	JS
Copper	BRL		0.228	2.00	ug/L	222745	1	04/19/2016 17:08	JS
Iron	BRL		31.9	100	ug/L	222745	1	04/19/2016 17:08	JS
Lead	0.207	J	0.143	1.00	ug/L	222745	1	04/19/2016 17:08	JS
Manganese	67.6		0.508	5.00	ug/L	222745	1	04/19/2016 17:08	JS
Selenium	0.981	J	0.159	5.00	ug/L	222745	1	04/19/2016 17:08	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0815		0.00380	0.0100	mg/L	R314592	1	04/13/2016 19:28	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R314856	1	04/18/2016 17:40	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222548	1	04/14/2016 21:04	AW
Surr: 4-Bromofluorobenzene	101		0	64.9-131	%REC	222548	1	04/14/2016 21:04	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-103
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 2:30:00 PM
Lab ID:	1604A68-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	9.6		0.11	1.0	mg/L	R314721	1	04/13/2016 15:56	JW
Nitrate	0.89		0.024	0.25	mg/L	R314721	1	04/13/2016 15:56	JW
Sulfate	0.81	J	0.10	1.0	mg/L	R314721	1	04/13/2016 15:56	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 12:22	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 12:22	MD
Methane	1.3	J	1.2	4.0	ug/L	222729	1	04/18/2016 12:22	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	25.0		1.68	3.00	mg/L	R314769	1	04/15/2016 12:15	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-104
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 4:20:00 PM
Lab ID:	1604A68-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,1-Dichloroethene	1.4	J	0.36	2.0	ug/L	222671	1	04/15/2016 03:21	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,2-Dichloroethane	1.8		0.24	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 03:21	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/15/2016 03:21	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/15/2016 03:21	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/15/2016 03:21	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/15/2016 03:21	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/15/2016 03:21	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/15/2016 03:21	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/15/2016 03:21	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Chloroform	1.8		0.30	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/15/2016 03:21	NP
cis-1,2-Dichloroethene	2.5		0.27	1.0	ug/L	222671	1	04/15/2016 03:21	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/15/2016 03:21	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/15/2016 03:21	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/15/2016 03:21	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222671	1	04/15/2016 03:21	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-104
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 4:20:00 PM
Lab ID:	1604A68-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/15/2016 03:21	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/15/2016 03:21	NP
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Tetrachloroethene	5.7		0.29	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/15/2016 03:21	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/15/2016 03:21	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/15/2016 03:21	NP
Trichloroethene	7.9		0.35	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Trichlorofluoromethane	1.3		0.32	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/15/2016 03:21	NP
Surr: 4-Bromofluorobenzene	83.1		0	70-130	%REC	222671	1	04/15/2016 03:21	NP
Surr: Dibromofluoromethane	118		0	70-130	%REC	222671	1	04/15/2016 03:21	NP
Surr: Toluene-d8	90.5		0	70-130	%REC	222671	1	04/15/2016 03:21	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	10.7		0.337	1.00	mg/L	R314933	1	04/19/2016 13:01	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.424	J	0.125	5.00	ug/L	222745	1	04/19/2016 17:46	JS
Barium	176		0.180	10.0	ug/L	222745	1	04/19/2016 17:46	JS
Cadmium	0.236	J	0.184	0.700	ug/L	222745	1	04/19/2016 17:46	JS
Chromium	1.43	J	0.137	5.00	ug/L	222745	1	04/19/2016 17:46	JS
Copper	1.04	J	0.228	2.00	ug/L	222745	1	04/19/2016 17:46	JS
Iron	508		31.9	100	ug/L	222745	1	04/19/2016 17:46	JS
Lead	0.799	J	0.143	1.00	ug/L	222745	1	04/19/2016 17:46	JS
Manganese	44.7		0.508	5.00	ug/L	222745	1	04/19/2016 17:46	JS
Selenium	0.406	J	0.159	5.00	ug/L	222745	1	04/19/2016 17:46	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.182		0.00380	0.0100	mg/L	R314592	1	04/13/2016 19:39	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R314856	1	04/18/2016 17:43	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222548	1	04/15/2016 01:23	AW
Surr: 4-Bromofluorobenzene	97.8		0	64.9-131	%REC	222548	1	04/15/2016 01:23	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041216-SAG-104
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/12/2016 4:20:00 PM
Lab ID:	1604A68-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	12		0.11	1.0	mg/L	R314721	1	04/13/2016 17:11	JW
Nitrate	1.2		0.024	0.25	mg/L	R314721	1	04/13/2016 17:11	JW
Sulfate	17		0.10	1.0	mg/L	R314721	1	04/13/2016 17:11	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 12:37	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 12:37	MD
Methane	BRL		1.2	4.0	ug/L	222729	1	04/18/2016 12:37	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	5.00		1.68	3.00	mg/L	R314814	1	04/18/2016 11:00	PF

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016
Lab ID:	1604A68-004	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222671	1	04/14/2016 23:48	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/14/2016 23:48	NP
1,4-Dioxane	BRL		11	150	ug/L	222671	1	04/14/2016 23:48	NP
2-Butanone	BRL		2.9	10	ug/L	222671	1	04/14/2016 23:48	NP
2-Hexanone	BRL		3.2	10	ug/L	222671	1	04/14/2016 23:48	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222671	1	04/14/2016 23:48	NP
Acetone	BRL		5.3	20	ug/L	222671	1	04/14/2016 23:48	NP
Benzene	BRL		0.14	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Bromoform	BRL		0.26	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Bromomethane	BRL		0.46	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222671	1	04/14/2016 23:48	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222671	1	04/14/2016 23:48	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Chloroethane	BRL		0.39	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Chloroform	BRL		0.30	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Chloromethane	BRL		0.29	1.0	ug/L	222671	1	04/14/2016 23:48	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222671	1	04/14/2016 23:48	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222671	1	04/14/2016 23:48	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Freon-113	BRL		0.32	5.0	ug/L	222671	1	04/14/2016 23:48	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222671	1	04/14/2016 23:48	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222671	1	04/14/2016 23:48	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016
Lab ID:	1604A68-004	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222671	1	04/14/2016 23:48	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222671	1	04/14/2016 23:48	NP
Styrene	BRL		0.13	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Toluene	BRL		0.20	1.0	ug/L	222671	1	04/14/2016 23:48	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222671	1	04/14/2016 23:48	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222671	1	04/14/2016 23:48	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222671	1	04/14/2016 23:48	NP
Surr: 4-Bromofluorobenzene	83.9		0	70-130	%REC	222671	1	04/14/2016 23:48	NP
Surr: Dibromofluoromethane	118		0	70-130	%REC	222671	1	04/14/2016 23:48	NP
Surr: Toluene-d8	90.4		0	70-130	%REC	222671	1	04/14/2016 23:48	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client GHD Work Order Number 1604A68

Checklist completed by [signature] 4/13/16
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes ✓ No __ Not Present __

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 5.4 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by [signature]

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1604A68

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604A68-001A	GW-013926-041216-SAG-102	4/12/2016 11:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/15/2016
1604A68-001B	GW-013926-041216-SAG-102	4/12/2016 11:05:00AM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604A68-001C	GW-013926-041216-SAG-102	4/12/2016 11:05:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/15/2016
1604A68-001D	GW-013926-041216-SAG-102	4/12/2016 11:05:00AM	Groundwater	Alkalinity by SM2320B			04/18/2016
1604A68-001E	GW-013926-041216-SAG-102	4/12/2016 11:05:00AM	Groundwater	Total Metals by ICP/MS		4/18/2016 3:25:00 PM	04/19/2016
1604A68-001F	GW-013926-041216-SAG-102	4/12/2016 11:05:00AM	Groundwater	ION SCAN			04/13/2016
1604A68-001G	GW-013926-041216-SAG-102	4/12/2016 11:05:00AM	Groundwater	Phosphorus, ortho			04/13/2016
1604A68-001H	GW-013926-041216-SAG-102	4/12/2016 11:05:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/18/2016
1604A68-001I	GW-013926-041216-SAG-102	4/12/2016 11:05:00AM	Groundwater	Total Organic Carbon (TOC)			04/19/2016
1604A68-002A	GW-013926-041216-SAG-103	4/12/2016 2:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/15/2016
1604A68-002B	GW-013926-041216-SAG-103	4/12/2016 2:30:00PM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604A68-002C	GW-013926-041216-SAG-103	4/12/2016 2:30:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/14/2016
1604A68-002D	GW-013926-041216-SAG-103	4/12/2016 2:30:00PM	Groundwater	Alkalinity by SM2320B			04/15/2016
1604A68-002E	GW-013926-041216-SAG-103	4/12/2016 2:30:00PM	Groundwater	Total Metals by ICP/MS		4/18/2016 3:25:00 PM	04/19/2016
1604A68-002F	GW-013926-041216-SAG-103	4/12/2016 2:30:00PM	Groundwater	ION SCAN			04/13/2016
1604A68-002G	GW-013926-041216-SAG-103	4/12/2016 2:30:00PM	Groundwater	Phosphorus, ortho			04/13/2016
1604A68-002H	GW-013926-041216-SAG-103	4/12/2016 2:30:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/18/2016
1604A68-002I	GW-013926-041216-SAG-103	4/12/2016 2:30:00PM	Groundwater	Total Organic Carbon (TOC)			04/19/2016
1604A68-003A	GW-013926-041216-SAG-104	4/12/2016 4:20:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/15/2016
1604A68-003B	GW-013926-041216-SAG-104	4/12/2016 4:20:00PM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604A68-003C	GW-013926-041216-SAG-104	4/12/2016 4:20:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/14/2016 11:30:00 AM	04/15/2016
1604A68-003D	GW-013926-041216-SAG-104	4/12/2016 4:20:00PM	Groundwater	Alkalinity by SM2320B			04/18/2016
1604A68-003E	GW-013926-041216-SAG-104	4/12/2016 4:20:00PM	Groundwater	Total Metals by ICP/MS		4/18/2016 3:25:00 PM	04/19/2016
1604A68-003F	GW-013926-041216-SAG-104	4/12/2016 4:20:00PM	Groundwater	ION SCAN			04/13/2016
1604A68-003G	GW-013926-041216-SAG-104	4/12/2016 4:20:00PM	Groundwater	Phosphorus, ortho			04/13/2016
1604A68-003H	GW-013926-041216-SAG-104	4/12/2016 4:20:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/18/2016
1604A68-003I	GW-013926-041216-SAG-104	4/12/2016 4:20:00PM	Groundwater	Total Organic Carbon (TOC)			04/19/2016
1604A68-004A	TRIP BLANK	4/13/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/14/2016 10:36:00 PM	04/14/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222548

Sample ID: **MB-222548** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771795**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.178	0	5.000		104	64.9	131				

Sample ID: **LCS-222548** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771796**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1020	0.020	0.1000		102	60	140				
Surr: 4-Bromofluorobenzene	5.348	0	5.000		107	64.9	131				

Sample ID: **LCSD-222548** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771797**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1000	0.020	0.1000		100	60	140	0.1020	1.98	20	
Surr: 4-Bromofluorobenzene	5.269	0	5.000		105	64.9	131	5.348	0	0	

Sample ID: **1604951-001AMS** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771800**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09088	0.020	0.0988		92.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.233	0	4.939		106	64.9	131				

Sample ID: **1604A68-002CMS** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771802**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09624	0.020	0.1013		95.0	65.6	136				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222548

Sample ID: **1604A68-002CMS** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771802**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	4.785	0	5.065		94.5	64.9	131				

Sample ID: **1604A68-002CMSD** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/14/2016** Run No: **314706**
SampleType: **MSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222548** Analysis Date: **04/14/2016** Seq No: **6771803**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09522	0.020	0.1002		95.0	65.6	136	0.09624	1.07	20	
Surr: 4-Bromofluorobenzene	5.034	0	5.011		100	64.9	131	4.785	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **MB-222671** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/14/2016** Seq No: **6771638**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2,4-Trimethylbenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3,5-Trimethylbenzene	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **MB-222671** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/14/2016** Seq No: **6771638**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	41.87	0	50.00		83.7	70	130				
Surr: Dibromofluoromethane	57.71	0	50.00		115	70	130				
Surr: Toluene-d8	44.57	0	50.00		89.1	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 21-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **LCS-222671** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/14/2016** Seq No: **6771637**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.42	1.0	50.00		119	70	130				
1,1,2,2-Tetrachloroethane	45.05	1.0	50.00		90.1	70	130				
1,1,2-Trichloroethane	54.83	1.0	50.00		110	70	130				
1,1-Dichloroethane	48.69	1.0	50.00		97.4	70	130				
1,1-Dichloroethene	52.98	2.0	50.00		106	60	140				
1,2,4-Trichlorobenzene	53.15	1.0	50.00		106	70	130				
1,2,4-Trimethylbenzene	44.06	1.0	50.00		88.1	70	130				
1,2-Dibromo-3-chloropropane	53.44	1.0	50.00		107	70	130				
1,2-Dichlorobenzene	50.53	1.0	50.00		101	70	130				
1,2-Dichloroethane	60.87	1.0	50.00		122	70	130				
1,2-Dichloropropane	52.79	1.0	50.00		106	70	130				
1,3,5-Trimethylbenzene	46.24	1.0	50.00		92.5	70	130				
1,3-Dichlorobenzene	49.19	1.0	50.00		98.4	70	130				
1,4-Dichlorobenzene	49.11	1.0	50.00		98.2	70	130				
Benzene	51.19	1.0	50.00		102	70	130				
Bromodichloromethane	53.20	1.0	50.00		106	70	130				
Bromoform	60.77	1.0	50.00		122	70	130				
Carbon tetrachloride	64.71	2.0	50.00		129	70	130				
Chlorobenzene	53.75	1.0	50.00		108	70	130				
Chloroform	56.19	1.0	50.00		112	70	130				
cis-1,2-Dichloroethene	48.31	1.0	50.00		96.6	70	130				
cis-1,3-Dichloropropene	52.91	1.0	50.00		106	70	130				
Dibromochloromethane	57.66	1.0	50.00		115	70	130				
Ethylbenzene	54.37	1.0	50.00		109	70	130				
Isopropylbenzene	47.03	1.0	50.00		94.1	70	130				
Methylene chloride	48.55	5.0	50.00		97.1	70	130				
Styrene	54.72	1.0	50.00		109	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **LCS-222671** Client ID: Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/14/2016** Seq No: **6771637**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	62.38	1.0	50.00		125	70	130				
Toluene	51.44	1.0	50.00		103	70	130				
trans-1,2-Dichloroethene	48.49	2.0	50.00		97.0	70	130				
trans-1,3-Dichloropropene	61.93	2.0	50.00		124	70	130				
Trichloroethene	61.56	1.0	50.00		123	70	130				
Vinyl chloride	56.44	1.0	50.00		113	70	130				
Xylenes, Total	163.8	1.0	150.0		109	70	130				
Surr: 4-Bromofluorobenzene	51.74	0	50.00		103	70	130				
Surr: Dibromofluoromethane	54.56	0	50.00		109	70	130				
Surr: Toluene-d8	46.78	0	50.00		93.6	70	130				

Sample ID: **1604A68-002AMS** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/15/2016** Seq No: **6771663**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	63.40	1.0	50.00		127	64.5	140				
1,1,2,2-Tetrachloroethane	51.40	1.0	50.00	4.150	94.5	66.5	128				
1,1,2-Trichloroethane	58.70	1.0	50.00		117	73.9	127				
1,1-Dichloroethane	52.83	1.0	50.00	2.280	101	61.6	127				
1,1-Dichloroethene	56.53	2.0	50.00	1.750	110	60	150				
1,2,4-Trichlorobenzene	46.68	1.0	50.00		93.4	60.4	131				
1,2,4-Trimethylbenzene	43.69	1.0	50.00		87.4	70.2	129				
1,2-Dibromo-3-chloropropane	50.69	1.0	50.00		101	50.2	131				
1,2-Dichlorobenzene	49.85	1.0	50.00		99.7	72	123				
1,2-Dichloroethane	64.76	1.0	50.00		130	66.5	133				
1,2-Dichloropropane	54.87	1.0	50.00		110	73	126				
1,3,5-Trimethylbenzene	45.95	1.0	50.00		91.9	66.1	133				
1,3-Dichlorobenzene	49.36	1.0	50.00		98.7	72.5	123				

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **1604A68-002AMS** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/15/2016** Seq No: **6771663**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	48.47	1.0	50.00		96.9	71.1	121				
Benzene	54.36	1.0	50.00		109	70.1	132				
Bromodichloromethane	57.55	1.0	50.00		115	62.2	131				
Bromoform	62.18	1.0	50.00		124	50.5	138				
Carbon tetrachloride	74.28	2.0	50.00		149	60	149				
Chlorobenzene	55.73	1.0	50.00		111	70.9	131				
Chloroform	60.28	1.0	50.00	1.420	118	67.7	128				
cis-1,2-Dichloroethene	125.4	1.0	50.00	69.49	112	68.8	133				
cis-1,3-Dichloropropene	54.94	1.0	50.00		110	53.8	134				
Dibromochloromethane	58.66	1.0	50.00		117	57	135				
Ethylbenzene	55.22	1.0	50.00		110	77.8	129				
Isopropylbenzene	47.68	1.0	50.00		95.4	63	132				
Methylene chloride	51.87	5.0	50.00		104	60.5	124				
Styrene	46.01	1.0	50.00		92.0	73.3	133				
Tetrachloroethene	90.69	1.0	50.00	27.04	127	69.6	140				
Toluene	54.46	1.0	50.00		109	70.1	133				
trans-1,2-Dichloroethene	49.56	2.0	50.00		99.1	63.7	127				
trans-1,3-Dichloropropene	63.96	2.0	50.00		128	56.2	127				S
Trichloroethene	207.2	1.0	50.00	140.5	133	70	136				E
Vinyl chloride	56.15	1.0	50.00		112	56.8	141				
Xylenes, Total	167.9	1.0	150.0		112	74.7	133				
Surr: 4-Bromofluorobenzene	51.66	0	50.00		103	70	130				
Surr: Dibromofluoromethane	56.81	0	50.00		114	70	130				
Surr: Toluene-d8	47.40	0	50.00		94.8	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **1604A68-002AMSD** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/15/2016** Seq No: **6771664**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.69	1.0	50.00		119	64.5	140	63.40	6.03	20	
1,1,2,2-Tetrachloroethane	50.08	1.0	50.00	4.150	91.9	66.5	128	51.40	2.60	20	
1,1,2-Trichloroethane	57.11	1.0	50.00		114	73.9	127	58.70	2.75	20	
1,1-Dichloroethane	49.66	1.0	50.00	2.280	94.8	61.6	127	52.83	6.19	20	
1,1-Dichloroethene	54.52	2.0	50.00	1.750	106	60	150	56.53	3.62	17.7	
1,2,4-Trichlorobenzene	47.26	1.0	50.00		94.5	60.4	131	46.68	1.23	24	
1,2,4-Trimethylbenzene	42.85	1.0	50.00		85.7	70.2	129	43.69	1.94	20	
1,2-Dibromo-3-chloropropane	51.44	1.0	50.00		103	50.2	131	50.69	1.47	19.5	
1,2-Dichlorobenzene	50.19	1.0	50.00		100	72	123	49.85	0.680	20	
1,2-Dichloroethane	62.47	1.0	50.00		125	66.5	133	64.76	3.60	20	
1,2-Dichloropropane	53.18	1.0	50.00		106	73	126	54.87	3.13	20	
1,3,5-Trimethylbenzene	44.99	1.0	50.00		90.0	66.1	133	45.95	2.11	20	
1,3-Dichlorobenzene	48.97	1.0	50.00		97.9	72.5	123	49.36	0.793	20	
1,4-Dichlorobenzene	48.47	1.0	50.00		96.9	71.1	121	48.47	0	20	
Benzene	52.98	1.0	50.00		106	70.1	132	54.36	2.57	20	
Bromodichloromethane	55.66	1.0	50.00		111	62.2	131	57.55	3.34	20	
Bromoform	60.54	1.0	50.00		121	50.5	138	62.18	2.67	17.9	
Carbon tetrachloride	71.56	2.0	50.00		143	60	149	74.28	3.73	20	
Chlorobenzene	53.83	1.0	50.00		108	70.9	131	55.73	3.47	20	
Chloroform	56.29	1.0	50.00	1.420	110	67.7	128	60.28	6.85	20	
cis-1,2-Dichloroethene	118.4	1.0	50.00	69.49	97.9	68.8	133	125.4	5.72	20	
cis-1,3-Dichloropropene	53.94	1.0	50.00		108	53.8	134	54.94	1.84	20	
Dibromochloromethane	56.95	1.0	50.00		114	57	135	58.66	2.96	20	
Ethylbenzene	53.50	1.0	50.00		107	77.8	129	55.22	3.16	20	
Isopropylbenzene	47.05	1.0	50.00		94.1	63	132	47.68	1.33	20	
Methylene chloride	49.11	5.0	50.00		98.2	60.5	124	51.87	5.47	17.4	
Styrene	45.13	1.0	50.00		90.3	73.3	133	46.01	1.93	20	

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222671

Sample ID: **1604A68-002AMSD** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/14/2016** Run No: **314695**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222671** Analysis Date: **04/15/2016** Seq No: **6771664**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	89.04	1.0	50.00	27.04	124	69.6	140	90.69	1.84	20	
Toluene	51.89	1.0	50.00		104	70.1	133	54.46	4.83	20	
trans-1,2-Dichloroethene	48.17	2.0	50.00		96.3	63.7	127	49.56	2.84	20	
trans-1,3-Dichloropropene	62.93	2.0	50.00		126	56.2	127	63.96	1.62	20	
Trichloroethene	203.2	1.0	50.00	140.5	125	70	136	207.2	1.94	20	E
Vinyl chloride	52.90	1.0	50.00		106	56.8	141	56.15	5.96	18.4	
Xylenes, Total	162.8	1.0	150.0		109	74.7	133	167.9	3.05	22.7	
Surr: 4-Bromofluorobenzene	51.08	0	50.00		102	70	130	51.66	0	0	
Surr: Dibromofluoromethane	56.34	0	50.00		113	70	130	56.81	0	0	
Surr: Toluene-d8	48.07	0	50.00		96.1	70	130	47.40	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222729

Sample ID: **MB-222729** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775305**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9.0									
Ethylene	BRL	7.0									
Methane	BRL	4.0									

Sample ID: **LCS-222729** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775306**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	120.8	9.0	200.0		60.4	40.9	115				
Ethylene	81.52	7.0	200.0		40.8	26.8	115				
Methane	135.1	4.0	200.0		67.6	45.9	115				

Sample ID: **LCSD-222729** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775307**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	115.0	9.0	200.0		57.5	40.9	115	120.8	4.96	20	
Ethylene	78.71	7.0	200.0		39.4	26.8	115	81.52	3.50	20	
Methane	126.1	4.0	200.0		63.0	45.9	115	135.1	6.93	20	

Sample ID: **1604A68-002BMS** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775333**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	108.4	9.0	200.0		54.2	40.5	115				
Ethylene	72.14	7.0	200.0		36.1	23	115				
Methane	124.3	4.0	200.0	1.297	61.5	40	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222729

Sample ID: **1604A68-002BMSD** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775335**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	108.1	9.0	200.0		54.1	40.5	115	108.4	0.284	20	
Ethylene	73.21	7.0	200.0		36.6	23	115	72.14	1.47	20	
Methane	123.2	4.0	200.0	1.297	61.0	40	115	124.3	0.882	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222745

Sample ID: **MB-222745** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779196**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00									
Barium	BRL	10.0									
Cadmium	BRL	0.700									
Chromium	0.1600	5.00									J
Copper	BRL	2.00									
Iron	BRL	100									
Lead	BRL	1.00									
Manganese	BRL	5.00									
Selenium	BRL	5.00									

Sample ID: **LCS-222745** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779197**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	104.3	5.00	100.0		104	80	120				
Barium	103.8	10.0	100.0		104	80	120				
Cadmium	105.9	0.700	100.0		106	80	120				
Chromium	111.9	5.00	100.0	0.1600	112	80	120				
Copper	105.1	2.00	100.0		105	80	120				
Iron	1067	100	1000		107	80	120				
Lead	112.4	1.00	100.0		112	80	120				
Manganese	104.4	5.00	100.0		104	80	120				
Selenium	104.5	5.00	100.0		104	80	120				

Sample ID: **1604A68-002EMS** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779199**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: 222745

Sample ID: **1604A68-002EMS** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779199**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	98.46	5.00	100.0	0.3710	98.1	75	125				
Barium	160.9	10.0	100.0	61.53	99.4	75	125				
Cadmium	100.5	0.700	100.0		100	75	125				
Chromium	103.6	5.00	100.0	0.3880	103	75	125				
Copper	98.88	2.00	100.0		98.9	75	125				
Iron	1016	100	1000		102	75	125				
Lead	106.3	1.00	100.0	0.2070	106	75	125				
Manganese	169.5	5.00	100.0	67.65	102	75	125				
Selenium	99.83	5.00	100.0	0.9810	98.8	75	125				

Sample ID: **1604A68-002EMSD** Client ID: **GW-013926-041216-SAG-103** Units: **ug/L** Prep Date: **04/18/2016** Run No: **314993**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222745** Analysis Date: **04/19/2016** Seq No: **6779200**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	98.08	5.00	100.0	0.3710	97.7	75	125	98.46	0.387	20	
Barium	158.3	10.0	100.0	61.53	96.8	75	125	160.9	1.63	20	
Cadmium	100.2	0.700	100.0		100	75	125	100.5	0.299	20	
Chromium	104.4	5.00	100.0	0.3880	104	75	125	103.6	0.769	20	
Copper	98.08	2.00	100.0		98.1	75	125	98.88	0.812	20	
Iron	1009	100	1000		101	75	125	1016	0.691	20	
Lead	106.3	1.00	100.0	0.2070	106	75	125	106.3	0	20	
Manganese	167.8	5.00	100.0	67.65	100	75	125	169.5	1.01	20	
Selenium	99.47	5.00	100.0	0.9810	98.5	75	125	99.83	0.361	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: R314592

Sample ID: **MB-R314592** Client ID: Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769227**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R314592** Client ID: Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769228**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09850	0.0100	0.1000		98.5	90	110				

Sample ID: **1604A26-005GMS** Client ID: Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769241**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09860	0.0100	0.1000		98.6	90	110				

Sample ID: **1604A68-002GMS** Client ID: **GW-013926-041216-SAG-103** Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769239**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1730	0.0100	0.1000	0.08150	91.5	90	110				

Sample ID: **1604A68-002GMSD** Client ID: **GW-013926-041216-SAG-103** Units: **mg/L** Prep Date: Run No: **314592**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314592** Analysis Date: **04/13/2016** Seq No: **6769240**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1690	0.0100	0.1000	0.08150	87.5	90	110	0.1730	2.34	20	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: R314721

Sample ID: **MB-R314721** Client ID: Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772150**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	0.1134	1.0									J
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R314721** Client ID: Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772149**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	4.862	1.0	5.000	0.1134	95.0	90	110				
Nitrate	4.969	0.25	5.000		99.4	90	110				
Sulfate	23.77	1.0	25.00		95.1	90	110				

Sample ID: **1604A26-005DMS** Client ID: Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772166**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	13.75	1.0	5.000	9.567	83.6	90	110				S
Nitrate	7.846	0.25	5.000	2.872	99.5	90	110				
Sulfate	34.61	1.0	25.00	10.36	97.0	90	110				

Sample ID: **1604A68-002FMS** Client ID: **GW-013926-041216-SAG-103** Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772162**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	13.57	1.0	5.000	9.587	79.6	90	110				S
Nitrate	5.862	0.25	5.000	0.8904	99.4	90	110				
Sulfate	24.05	1.0	25.00	0.8149	92.9	90	110				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: R314721

Sample ID: **1604A68-002FMSD** Client ID: **GW-013926-041216-SAG-103** Units: **mg/L** Prep Date: Run No: **314721**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R314721** Analysis Date: **04/13/2016** Seq No: **6772163**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	13.58	1.0	5.000	9.587	79.9	90	110	13.57	0.110	20	S
Nitrate	5.853	0.25	5.000	0.8904	99.3	90	110	5.862	0.148	20	
Sulfate	23.92	1.0	25.00	0.8149	92.4	90	110	24.05	0.509	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: R314769

Sample ID: **MB-R314769** Client ID: Units: **mg/L** Prep Date: Run No: **314769**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R314769** Analysis Date: **04/15/2016** Seq No: **6773357**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R314769** Client ID: Units: **mg/L** Prep Date: Run No: **314769**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R314769** Analysis Date: **04/15/2016** Seq No: **6773358**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	123.0	3.00	125.0		98.4	75	125				

Sample ID: **1604A68-002DDUP** Client ID: **GW-013926-041216-SAG-103** Units: **mg/L** Prep Date: Run No: **314769**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R314769** Analysis Date: **04/15/2016** Seq No: **6773393**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	25.00	3.00						25.00	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: R314814

Sample ID: **MB-R314814** Client ID: Units: **mg/L** Prep Date: Run No: **314814**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R314814** Analysis Date: **04/18/2016** Seq No: **6774848**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R314814** Client ID: Units: **mg/L** Prep Date: Run No: **314814**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R314814** Analysis Date: **04/18/2016** Seq No: **6774849**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	123.0	3.00	125.0		98.4	75	125				

Sample ID: **1604A39-002EDUP** Client ID: Units: **mg/L** Prep Date: Run No: **314814**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R314814** Analysis Date: **04/18/2016** Seq No: **6774884**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00						0	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: R314856

Sample ID: **MB-R314856** Client ID: Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775977**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R314856** Client ID: Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775978**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.010	0.020	1.000		101	90	110				

Sample ID: **1604870-002AMS** Client ID: Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775981**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.060	0.020	1.000	0.02320	104	90	110				

Sample ID: **1604A68-002HMS** Client ID: **GW-013926-041216-SAG-103** Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775992**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9340	0.020	1.000		93.4	90	110				

Sample ID: **1604A68-002HMSD** Client ID: **GW-013926-041216-SAG-103** Units: **mg/L** Prep Date: Run No: **314856**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R314856** Analysis Date: **04/18/2016** Seq No: **6775993**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9210	0.020	1.000		92.1	90	110	0.9340	1.40	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604A68

ANALYTICAL QC SUMMARY REPORT

BatchID: R314933

Sample ID: **MB-R314933** Client ID: Units: **mg/L** Prep Date: Run No: **314933**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R314933** Analysis Date: **04/19/2016** Seq No: **6777719**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	0.4103	1.00									J

Sample ID: **LCS-R314933** Client ID: Units: **mg/L** Prep Date: Run No: **314933**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R314933** Analysis Date: **04/19/2016** Seq No: **6777718**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.59	1.00	25.00		94.4	90	110				

Sample ID: **1604A68-002IMS** Client ID: **GW-013926-041216-SAG-103** Units: **mg/L** Prep Date: Run No: **314933**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R314933** Analysis Date: **04/19/2016** Seq No: **6777729**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	34.76	1.00	25.00	11.17	94.4	80	120				

Sample ID: **1604A68-002IMSD** Client ID: **GW-013926-041216-SAG-103** Units: **mg/L** Prep Date: Run No: **314933**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R314933** Analysis Date: **04/19/2016** Seq No: **6777730**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	34.63	1.00	25.00	11.17	93.8	80	120	34.76	0.375	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 27, 2016

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1604C59

Analytical Environmental Services, Inc. received 16 samples on 4/14/2016 3:35:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
-NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

CKanhai

Chantelle Kanhai
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1004C59

Date: 4/14/16 Page ____ of ____

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd. Ste 470, Duluth, GA 30096

PHONE: 770-441-8027

FAX: 770-441-2050

SAMPLED BY: Steven Greene

SIGNATURE: [signature]

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC's + TMB's	EDB	diss. gases	Alkalinity	TOC	ortho P	TAL metals	NH3	Chloride, Nitrate, Sulfate					REMARKS	No # of Containers
							PRESERVATION (See codes)														
1	GW-013926-041316-SAG-105	4/13/16	1015	X		GW	X	X	X	X	X	X	X	X	X						12
2	" " " " -106		1155	X			X	X	X	X	X	X	X	X	X						12
3	" " " " -107		1435	X			X	X	X	X	X	X	X	X	X						12
4	" " " " -108		1645	X			X	X	X	X	X	X	X	X	X						12
5	Trip Blank						X	X													
6	GW-013926-041316-MRB-006	4/13/16	9:30	X		GW	X	X	X	X	X	X	X	X	X						12
7	" " " " -007		11:05	X			X	X	X	X	X	X	X	X	X						12
8	" " " " -008		11:15	X			X	X	X	X	X	X	X	X	X						12
9	" " " " -009		14:40	X			X	X	X	X	X	X	X	X	X						12
10	" " " " -010		16:15	X			X	X	X	X	X	X	X	X	X						12
11	GW-013926-041416-SAG-109	4/14/16	9:00	X			X	X	X	X	X	X	X	X	X						12
12	" " " " -110		10:00	X			X	X	X	X	X	X	X	X	X						12
13	" " " " -111		11:10	X			X	X	X	X	X	X	X	X	X						12
14	TRIP Blank						X	X													

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	4/14/16 1535	1: Jessica Atilley	4/14/16 3:35 pm
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Aquatech

PROJECT #: 013926

SITE ADDRESS: 420 Robinson Road, Greer, SC

SEND REPORT TO: Terrefe Mazengia

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: ____ PO#: ____

RECEIPT

Total # of Containers

Turnaround Time Request
- (X) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other ____

STATE PROGRAM (if any): ____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS: see SSOW

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER Drop off

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1604C59

Case Narrative

Sample Receiving Nonconformance:

Sample "GW-013926-041316-SAG-106" was listed on the Chain of Custody but was not received.

We received a set of unlabeled containers.

By process of elimination, the unlabaled sample containers were logged in as "GW-013926-041316-SAG-106".

Microextractable VOC Analysis by Method 8011:

Matrix spike duplicate analyses were not performed with Batch 222718 due to insufficient sample volume.

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-105
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 10:15:00 AM
Lab ID:	1604C59-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 18:43	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 18:43	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 18:43	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 18:43	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 18:43	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 18:43	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 18:43	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 18:43	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 18:43	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 18:43	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222704	1	04/15/2016 18:43	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 18:43	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 18:43	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 18:43	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 18:43	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-105
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 10:15:00 AM
Lab ID:	1604C59-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 18:43	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 18:43	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 18:43	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 18:43	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 18:43	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 18:43	NP
Surr: 4-Bromofluorobenzene	80.8		0	70-130	%REC	222704	1	04/15/2016 18:43	NP
Surr: Dibromofluoromethane	114		0	70-130	%REC	222704	1	04/15/2016 18:43	NP
Surr: Toluene-d8	89.2		0	70-130	%REC	222704	1	04/15/2016 18:43	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.44		0.337	1.00	mg/L	R315101	1	04/20/2016 13:15	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.366	J	0.125	5.00	ug/L	222815	1	04/20/2016 16:05	JS
Barium	17.4		0.180	10.0	ug/L	222815	1	04/20/2016 16:05	JS
Cadmium	0.186	J	0.184	0.700	ug/L	222815	1	04/20/2016 16:05	JS
Chromium	1.04	J	0.137	5.00	ug/L	222815	1	04/20/2016 16:05	JS
Copper	BRL		0.228	2.00	ug/L	222815	1	04/20/2016 16:05	JS
Iron	37.9	J	31.9	100	ug/L	222815	1	04/20/2016 16:05	JS
Lead	0.523	J	0.143	1.00	ug/L	222815	1	04/20/2016 16:05	JS
Manganese	57.8		0.508	5.00	ug/L	222815	1	04/20/2016 16:05	JS
Selenium	1.09	J	0.159	5.00	ug/L	222815	1	04/20/2016 16:05	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0868		0.00380	0.0100	mg/L	R314741	1	04/14/2016 20:46	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R315012	1	04/20/2016 15:05	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 13:22	AW
Surr: 4-Bromofluorobenzene	98.2		0	64.9-131	%REC	222718	1	04/19/2016 13:22	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-105
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 10:15:00 AM
Lab ID:	1604C59-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	2.3		0.11	1.0	mg/L	R314984	1	04/14/2016 17:36	JW
Nitrate	1.0		0.024	0.25	mg/L	R314984	1	04/14/2016 17:36	JW
Sulfate	3.5		0.10	1.0	mg/L	R314984	1	04/14/2016 17:36	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 12:47	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 12:47	MD
Methane	BRL		1.2	4.0	ug/L	222729	1	04/18/2016 12:47	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	25.0		1.68	3.00	mg/L	R314814	1	04/19/2016 11:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 11:55:00 AM
Lab ID:	1604C59-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 19:07	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 19:07	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 19:07	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 19:07	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 19:07	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 19:07	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 19:07	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 19:07	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 19:07	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 19:07	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222704	1	04/15/2016 19:07	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 19:07	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 19:07	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 19:07	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 19:07	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 11:55:00 AM
Lab ID:	1604C59-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 19:07	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 19:07	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 19:07	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 19:07	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 19:07	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 19:07	NP
Surr: 4-Bromofluorobenzene	87.7		0	70-130	%REC	222704	1	04/15/2016 19:07	NP
Surr: Dibromofluoromethane	115		0	70-130	%REC	222704	1	04/15/2016 19:07	NP
Surr: Toluene-d8	90.4		0	70-130	%REC	222704	1	04/15/2016 19:07	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.961	J	0.337	1.00	mg/L	R315101	1	04/20/2016 13:47	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.421	J	0.125	5.00	ug/L	222815	1	04/20/2016 16:36	JS
Barium	48.8		0.180	10.0	ug/L	222815	1	04/20/2016 16:36	JS
Cadmium	0.188	J	0.184	0.700	ug/L	222815	1	04/20/2016 16:36	JS
Chromium	1.38	J	0.137	5.00	ug/L	222815	1	04/20/2016 16:36	JS
Copper	BRL		0.228	2.00	ug/L	222815	1	04/20/2016 16:36	JS
Iron	465		31.9	100	ug/L	222815	1	04/20/2016 16:36	JS
Lead	0.514	J	0.143	1.00	ug/L	222815	1	04/20/2016 16:36	JS
Manganese	6.80		0.508	5.00	ug/L	222815	1	04/20/2016 16:36	JS
Selenium	1.53	J	0.159	5.00	ug/L	222815	1	04/20/2016 16:36	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0103		0.00380	0.0100	mg/L	R314741	1	04/14/2016 20:48	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R315012	1	04/20/2016 15:08	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 14:47	AW
Surr: 4-Bromofluorobenzene	101		0	64.9-131	%REC	222718	1	04/19/2016 14:47	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 11:55:00 AM
Lab ID:	1604C59-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	2.5		0.11	1.0	mg/L	R314984	1	04/14/2016 18:37	JW
Nitrate	1.7		0.024	0.25	mg/L	R314984	1	04/14/2016 18:37	JW
Sulfate	15		0.10	1.0	mg/L	R314984	1	04/14/2016 18:37	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 12:51	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 12:51	MD
Methane	BRL		1.2	4.0	ug/L	222729	1	04/18/2016 12:51	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	21.0		1.68	3.00	mg/L	R314814	1	04/19/2016 11:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 2:35:00 PM
Lab ID:	1604C59-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 19:30	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 19:30	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 19:30	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 19:30	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 19:30	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 19:30	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 19:30	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 19:30	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 19:30	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 19:30	NP
cis-1,2-Dichloroethene	9.4		0.27	1.0	ug/L	222704	1	04/15/2016 19:30	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 19:30	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 19:30	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 19:30	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 19:30	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 2:35:00 PM
Lab ID:	1604C59-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 19:30	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 19:30	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Tetrachloroethene	47		0.29	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 19:30	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 19:30	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 19:30	NP
Trichloroethene	40		0.35	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 19:30	NP
Surr: 4-Bromofluorobenzene	82.9		0	70-130	%REC	222704	1	04/15/2016 19:30	NP
Surr: Dibromofluoromethane	113		0	70-130	%REC	222704	1	04/15/2016 19:30	NP
Surr: Toluene-d8	89.9		0	70-130	%REC	222704	1	04/15/2016 19:30	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.46		0.337	1.00	mg/L	R315101	1	04/20/2016 14:16	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.638	J	0.125	5.00	ug/L	222815	1	04/20/2016 16:42	JS
Barium	171		0.180	10.0	ug/L	222815	1	04/20/2016 16:42	JS
Cadmium	0.254	J	0.184	0.700	ug/L	222815	1	04/20/2016 16:42	JS
Chromium	5.29		0.137	5.00	ug/L	222815	1	04/20/2016 16:42	JS
Copper	BRL		0.228	2.00	ug/L	222815	1	04/20/2016 16:42	JS
Iron	51.8	J	31.9	100	ug/L	222815	1	04/20/2016 16:42	JS
Lead	0.278	J	0.143	1.00	ug/L	222815	1	04/20/2016 16:42	JS
Manganese	427		0.508	5.00	ug/L	222815	1	04/20/2016 16:42	JS
Selenium	1.22	J	0.159	5.00	ug/L	222815	1	04/20/2016 16:42	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0208		0.00380	0.0100	mg/L	R314741	1	04/14/2016 20:50	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R315012	1	04/20/2016 15:09	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 15:16	AW
Surr: 4-Bromofluorobenzene	101		0	64.9-131	%REC	222718	1	04/19/2016 15:16	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 2:35:00 PM
Lab ID:	1604C59-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	14		0.11	1.0	mg/L	R314984	1	04/14/2016 18:52	JW
Nitrate	3.2		0.024	0.25	mg/L	R314984	1	04/14/2016 18:52	JW
Sulfate	2.0		0.10	1.0	mg/L	R314984	1	04/14/2016 18:52	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 14:24	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 14:24	MD
Methane	1.8	J	1.2	4.0	ug/L	222729	1	04/18/2016 14:24	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	7.00		1.68	3.00	mg/L	R314814	1	04/19/2016 11:00	PF

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 4:45:00 PM
Lab ID:	1604C59-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,1-Dichloroethane	1.0		0.25	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 19:54	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 19:54	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 19:54	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 19:54	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 19:54	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 19:54	NP
Acetone	24		5.3	20	ug/L	222704	1	04/15/2016 19:54	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 19:54	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 19:54	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 19:54	NP
cis-1,2-Dichloroethene	6.2		0.27	1.0	ug/L	222704	1	04/15/2016 19:54	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 19:54	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 19:54	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 19:54	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 19:54	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 4:45:00 PM
Lab ID:	1604C59-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 19:54	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 19:54	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 19:54	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 19:54	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 19:54	NP
Trichloroethene	1.7		0.35	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Vinyl chloride	1.3		0.42	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 19:54	NP
Surr: 4-Bromofluorobenzene	84.4		0	70-130	%REC	222704	1	04/15/2016 19:54	NP
Surr: Dibromofluoromethane	114		0	70-130	%REC	222704	1	04/15/2016 19:54	NP
Surr: Toluene-d8	91.5		0	70-130	%REC	222704	1	04/15/2016 19:54	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	4.77		0.337	1.00	mg/L	R315101	1	04/20/2016 14:49	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.882	J	0.125	5.00	ug/L	222815	1	04/20/2016 16:48	JS
Barium	66.4		0.180	10.0	ug/L	222815	1	04/20/2016 16:48	JS
Cadmium	0.474	J	0.184	0.700	ug/L	222815	1	04/20/2016 16:48	JS
Chromium	0.874	J	0.137	5.00	ug/L	222815	1	04/20/2016 16:48	JS
Copper	0.683	J	0.228	2.00	ug/L	222815	1	04/20/2016 16:48	JS
Iron	231		31.9	100	ug/L	222815	1	04/20/2016 16:48	JS
Lead	0.423	J	0.143	1.00	ug/L	222815	1	04/20/2016 16:48	JS
Manganese	141		0.508	5.00	ug/L	222815	1	04/20/2016 16:48	JS
Selenium	BRL		0.159	5.00	ug/L	222815	1	04/20/2016 16:48	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.159		0.00380	0.0100	mg/L	R314741	1	04/14/2016 20:51	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	1.57		0.010	0.020	mg/L	R315012	1	04/20/2016 15:11	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 15:45	AW
Surr: 4-Bromofluorobenzene	111		0	64.9-131	%REC	222718	1	04/19/2016 15:45	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-SAG-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 4:45:00 PM
Lab ID:	1604C59-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	7.7		0.11	1.0	mg/L	R314984	1	04/14/2016 19:07	JW
Nitrate	0.031	J	0.024	0.25	mg/L	R314984	1	04/14/2016 19:07	JW
Sulfate	5.9		0.10	1.0	mg/L	R314984	1	04/14/2016 19:07	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 14:30	MD
Ethylene	5.4	J	3.5	7.0	ug/L	222729	1	04/18/2016 14:30	MD
Methane	1800		24	80	ug/L	222729	20	04/18/2016 15:22	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	138		1.68	3.00	mg/L	R314814	1	04/19/2016 11:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016
Lab ID:	1604C59-005	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 15:57	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 15:57	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 15:57	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 15:57	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 15:57	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 15:57	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 15:57	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 15:57	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 15:57	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 15:57	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222704	1	04/15/2016 15:57	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 15:57	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 15:57	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 15:57	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 15:57	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016
Lab ID:	1604C59-005	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 15:57	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 15:57	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 15:57	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 15:57	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 15:57	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 15:57	NP
Surr: 4-Bromofluorobenzene	85.5		0	70-130	%REC	222704	1	04/15/2016 15:57	NP
Surr: Dibromofluoromethane	114		0	70-130	%REC	222704	1	04/15/2016 15:57	NP
Surr: Toluene-d8	89.5		0	70-130	%REC	222704	1	04/15/2016 15:57	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 9:30:00 AM
Lab ID:	1604C59-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,1,2,2-Tetrachloroethane	3.0		0.24	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 20:18	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 20:18	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 20:18	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 20:18	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 20:18	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 20:18	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 20:18	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 20:18	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 20:18	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 20:18	NP
cis-1,2-Dichloroethene	8.2		0.27	1.0	ug/L	222704	1	04/15/2016 20:18	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 20:18	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 20:18	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 20:18	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 20:18	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 9:30:00 AM
Lab ID:	1604C59-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 20:18	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 20:18	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Tetrachloroethene	11		0.29	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 20:18	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 20:18	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 20:18	NP
Trichloroethene	28		0.35	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 20:18	NP
Surr: 4-Bromofluorobenzene	83.6		0	70-130	%REC	222704	1	04/15/2016 20:18	NP
Surr: Dibromofluoromethane	115		0	70-130	%REC	222704	1	04/15/2016 20:18	NP
Surr: Toluene-d8	91.7		0	70-130	%REC	222704	1	04/15/2016 20:18	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	7.48		0.337	1.00	mg/L	R315101	1	04/20/2016 15:19	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	BRL		0.125	5.00	ug/L	222815	1	04/20/2016 17:14	JS
Barium	65.5		0.180	10.0	ug/L	222815	1	04/20/2016 17:14	JS
Cadmium	0.286	J	0.184	0.700	ug/L	222815	1	04/20/2016 17:14	JS
Chromium	0.926	J	0.137	5.00	ug/L	222815	1	04/20/2016 17:14	JS
Copper	2.83		0.228	2.00	ug/L	222815	1	04/20/2016 17:14	JS
Iron	308		31.9	100	ug/L	222815	1	04/20/2016 17:14	JS
Lead	0.907	J	0.143	1.00	ug/L	222815	1	04/20/2016 17:14	JS
Manganese	1180		0.508	5.00	ug/L	222815	1	04/20/2016 17:14	JS
Selenium	0.368	J	0.159	5.00	ug/L	222815	1	04/20/2016 17:14	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00856	J	0.00380	0.0100	mg/L	R314741	1	04/14/2016 20:53	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.211		0.010	0.020	mg/L	R315012	1	04/20/2016 15:12	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 16:13	AW
Surr: 4-Bromofluorobenzene	110		0	64.9-131	%REC	222718	1	04/19/2016 16:13	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 9:30:00 AM
Lab ID:	1604C59-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	7.1		0.11	1.0	mg/L	R314984	1	04/14/2016 19:22	JW
Nitrate	0.26		0.024	0.25	mg/L	R314984	1	04/14/2016 19:22	JW
Sulfate	0.39	J	0.10	1.0	mg/L	R314984	1	04/14/2016 19:22	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 14:35	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 14:35	MD
Methane	31		1.2	4.0	ug/L	222729	1	04/18/2016 14:35	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	5.00		1.68	3.00	mg/L	R314814	1	04/19/2016 11:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 11:05:00 AM
Lab ID:	1604C59-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,1,2,2-Tetrachloroethane	14		0.24	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,1-Dichloroethane	1.7		0.25	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 20:41	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 20:41	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 20:41	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 20:41	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 20:41	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 20:41	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 20:41	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 20:41	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 20:41	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 20:41	NP
cis-1,2-Dichloroethene	39		0.27	1.0	ug/L	222704	1	04/15/2016 20:41	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 20:41	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 20:41	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 20:41	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 20:41	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 11:05:00 AM
Lab ID:	1604C59-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 20:41	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 20:41	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Tetrachloroethene	14		0.29	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 20:41	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 20:41	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 20:41	NP
Trichloroethene	140		0.35	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Vinyl chloride	1.4		0.42	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 20:41	NP
Surr: 4-Bromofluorobenzene	83.7		0	70-130	%REC	222704	1	04/15/2016 20:41	NP
Surr: Dibromofluoromethane	119		0	70-130	%REC	222704	1	04/15/2016 20:41	NP
Surr: Toluene-d8	91.5		0	70-130	%REC	222704	1	04/15/2016 20:41	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	5.49		0.337	1.00	mg/L	R315101	1	04/20/2016 15:49	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.504	J	0.125	5.00	ug/L	222815	1	04/20/2016 17:20	JS
Barium	211		0.180	10.0	ug/L	222815	1	04/20/2016 17:20	JS
Cadmium	0.211	J	0.184	0.700	ug/L	222815	1	04/20/2016 17:20	JS
Chromium	1.03	J	0.137	5.00	ug/L	222815	1	04/20/2016 17:20	JS
Copper	4.08		0.228	2.00	ug/L	222815	1	04/20/2016 17:20	JS
Iron	304		31.9	100	ug/L	222815	1	04/20/2016 17:20	JS
Lead	0.614	J	0.143	1.00	ug/L	222815	1	04/20/2016 17:20	JS
Manganese	372		0.508	5.00	ug/L	222815	1	04/20/2016 17:20	JS
Selenium	1.39	J	0.159	5.00	ug/L	222815	1	04/20/2016 17:20	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00703	J	0.00380	0.0100	mg/L	R314741	1	04/14/2016 20:54	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.141		0.010	0.020	mg/L	R315012	1	04/20/2016 15:13	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 16:41	AW
Surr: 4-Bromofluorobenzene	104		0	64.9-131	%REC	222718	1	04/19/2016 16:41	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 11:05:00 AM
Lab ID:	1604C59-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	29		0.56	5.0	mg/L	R314984	5	04/15/2016 09:36	JW
Nitrate	0.38		0.024	0.25	mg/L	R314984	1	04/14/2016 19:37	JW
Sulfate	2.7		0.10	1.0	mg/L	R314984	1	04/14/2016 19:37	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 14:39	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 14:39	MD
Methane	9.4		1.2	4.0	ug/L	222729	1	04/18/2016 14:39	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	5.00		1.68	3.00	mg/L	R314814	1	04/19/2016 11:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 11:15:00 AM
Lab ID:	1604C59-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,1,2,2-Tetrachloroethane	13		0.24	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,1-Dichloroethane	1.7		0.25	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 21:28	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 21:28	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 21:28	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 21:28	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 21:28	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 21:28	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 21:28	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 21:28	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 21:28	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 21:28	NP
cis-1,2-Dichloroethene	38		0.27	1.0	ug/L	222704	1	04/15/2016 21:28	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 21:28	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 21:28	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 21:28	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 21:28	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 11:15:00 AM
Lab ID:	1604C59-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 21:28	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 21:28	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Tetrachloroethene	14		0.29	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 21:28	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 21:28	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 21:28	NP
Trichloroethene	140		0.35	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Vinyl chloride	1.3		0.42	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 21:28	NP
Surr: 4-Bromofluorobenzene	82.2		0	70-130	%REC	222704	1	04/15/2016 21:28	NP
Surr: Dibromofluoromethane	116		0	70-130	%REC	222704	1	04/15/2016 21:28	NP
Surr: Toluene-d8	88.4		0	70-130	%REC	222704	1	04/15/2016 21:28	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	5.67		0.337	1.00	mg/L	R315101	1	04/20/2016 16:21	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.480	J	0.125	5.00	ug/L	222815	1	04/20/2016 17:26	JS
Barium	207		0.180	10.0	ug/L	222815	1	04/20/2016 17:26	JS
Cadmium	0.210	J	0.184	0.700	ug/L	222815	1	04/20/2016 17:26	JS
Chromium	1.19	J	0.137	5.00	ug/L	222815	1	04/20/2016 17:26	JS
Copper	4.11		0.228	2.00	ug/L	222815	1	04/20/2016 17:26	JS
Iron	307		31.9	100	ug/L	222815	1	04/20/2016 17:26	JS
Lead	0.657	J	0.143	1.00	ug/L	222815	1	04/20/2016 17:26	JS
Manganese	366		0.508	5.00	ug/L	222815	1	04/20/2016 17:26	JS
Selenium	1.58	J	0.159	5.00	ug/L	222815	1	04/20/2016 17:26	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00857	J	0.00380	0.0100	mg/L	R314741	1	04/14/2016 20:56	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.052		0.010	0.020	mg/L	R315012	1	04/20/2016 15:18	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 17:10	AW
Surr: 4-Bromofluorobenzene	104		0	64.9-131	%REC	222718	1	04/19/2016 17:10	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 11:15:00 AM
Lab ID:	1604C59-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	30		0.56	5.0	mg/L	R314984	5	04/15/2016 09:52	JW
Nitrate	0.38		0.024	0.25	mg/L	R314984	1	04/14/2016 19:52	JW
Sulfate	9.9		0.10	1.0	mg/L	R314984	1	04/14/2016 19:52	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 14:45	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 14:45	MD
Methane	9.4		1.2	4.0	ug/L	222729	1	04/18/2016 14:45	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	BRL		1.68	3.00	mg/L	R314814	1	04/19/2016 11:00	PF

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-009
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 2:40:00 PM
Lab ID:	1604C59-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,1,2,2-Tetrachloroethane	9.9		0.24	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 21:51	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 21:51	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 21:51	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 21:51	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 21:51	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 21:51	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 21:51	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 21:51	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 21:51	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 21:51	NP
cis-1,2-Dichloroethene	42		0.27	1.0	ug/L	222704	1	04/15/2016 21:51	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 21:51	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 21:51	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 21:51	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 21:51	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-009
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 2:40:00 PM
Lab ID:	1604C59-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 21:51	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 21:51	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Tetrachloroethene	24		0.29	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 21:51	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 21:51	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 21:51	NP
Trichloroethene	80		0.35	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 21:51	NP
Surr: 4-Bromofluorobenzene	80.7		0	70-130	%REC	222704	1	04/15/2016 21:51	NP
Surr: Dibromofluoromethane	120		0	70-130	%REC	222704	1	04/15/2016 21:51	NP
Surr: Toluene-d8	90.6		0	70-130	%REC	222704	1	04/15/2016 21:51	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.52		0.337	1.00	mg/L	R315101	1	04/20/2016 18:33	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.367	J	0.125	5.00	ug/L	222815	1	04/20/2016 17:33	JS
Barium	120		0.180	10.0	ug/L	222815	1	04/20/2016 17:33	JS
Cadmium	1.16		0.184	0.700	ug/L	222815	1	04/20/2016 17:33	JS
Chromium	0.934	J	0.137	5.00	ug/L	222815	1	04/20/2016 17:33	JS
Copper	2.19		0.228	2.00	ug/L	222815	1	04/20/2016 17:33	JS
Iron	191		31.9	100	ug/L	222815	1	04/20/2016 17:33	JS
Lead	0.340	J	0.143	1.00	ug/L	222815	1	04/20/2016 17:33	JS
Manganese	2960		0.508	5.00	ug/L	222815	1	04/20/2016 17:33	JS
Selenium	0.652	J	0.159	5.00	ug/L	222815	1	04/20/2016 17:33	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0143		0.00380	0.0100	mg/L	R314741	1	04/14/2016 20:57	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R315012	1	04/20/2016 15:20	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 17:39	AW
Surr: 4-Bromofluorobenzene	105		0	64.9-131	%REC	222718	1	04/19/2016 17:39	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-009
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 2:40:00 PM
Lab ID:	1604C59-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	14		0.11	1.0	mg/L	R314984	1	04/14/2016 20:07	JW
Nitrate	0.48		0.024	0.25	mg/L	R314984	1	04/14/2016 20:07	JW
Sulfate	4.1		0.10	1.0	mg/L	R314984	1	04/14/2016 20:07	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 14:50	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 14:50	MD
Methane	41		1.2	4.0	ug/L	222729	1	04/18/2016 14:50	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	25.0		1.68	3.00	mg/L	R314814	1	04/19/2016 11:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-010
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 4:18:00 PM
Lab ID:	1604C59-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	24		0.25	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,1,2,2-Tetrachloroethane	2.0		0.24	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,1-Dichloroethane	5.6		0.25	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,1-Dichloroethene	1.7	J	0.36	2.0	ug/L	222704	1	04/15/2016 22:15	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 22:15	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 22:15	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 22:15	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 22:15	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 22:15	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 22:15	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 22:15	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 22:15	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Chloroform	0.97	J	0.30	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 22:15	NP
cis-1,2-Dichloroethene	12		0.27	1.0	ug/L	222704	1	04/15/2016 22:15	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 22:15	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 22:15	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 22:15	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 22:15	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-010
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 4:18:00 PM
Lab ID:	1604C59-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 22:15	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 22:15	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Tetrachloroethene	83		0.29	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 22:15	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 22:15	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 22:15	NP
Trichloroethene	15		0.35	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 22:15	NP
Surr: 4-Bromofluorobenzene	85		0	70-130	%REC	222704	1	04/15/2016 22:15	NP
Surr: Dibromofluoromethane	117		0	70-130	%REC	222704	1	04/15/2016 22:15	NP
Surr: Toluene-d8	89.6		0	70-130	%REC	222704	1	04/15/2016 22:15	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	4.72		0.337	1.00	mg/L	R315101	1	04/20/2016 19:02	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	2.35	J	0.125	5.00	ug/L	222815	1	04/20/2016 17:39	JS
Barium	278		0.180	10.0	ug/L	222815	1	04/20/2016 17:39	JS
Cadmium	0.496	J	0.184	0.700	ug/L	222815	1	04/20/2016 17:39	JS
Chromium	1.68	J	0.137	5.00	ug/L	222815	1	04/20/2016 17:39	JS
Copper	2.36		0.228	2.00	ug/L	222815	1	04/20/2016 17:39	JS
Iron	6690		31.9	100	ug/L	222815	1	04/20/2016 17:39	JS
Lead	1.02		0.143	1.00	ug/L	222815	1	04/20/2016 17:39	JS
Manganese	12700		0.508	5.00	ug/L	222815	1	04/20/2016 17:39	JS
Selenium	0.572	J	0.159	5.00	ug/L	222815	1	04/20/2016 17:39	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00986	J	0.00380	0.0100	mg/L	R314741	1	04/14/2016 21:01	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R315012	1	04/20/2016 15:21	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 18:07	AW
Surr: 4-Bromofluorobenzene	89.9		0	64.9-131	%REC	222718	1	04/19/2016 18:07	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041316-MRB-010
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/13/2016 4:18:00 PM
Lab ID:	1604C59-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	18		0.11	1.0	mg/L	R314984	1	04/14/2016 20:22	JW
Nitrate	6.1		0.024	0.25	mg/L	R314984	1	04/14/2016 20:22	JW
Sulfate	7.7		0.10	1.0	mg/L	R314984	1	04/14/2016 20:22	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 14:55	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 14:55	MD
Methane	BRL		1.2	4.0	ug/L	222729	1	04/18/2016 14:55	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	22.0		1.68	3.00	mg/L	R314814	1	04/19/2016 11:00	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041416-SAG-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016 9:00:00 AM
Lab ID:	1604C59-011	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,1-Dichloroethane	1.3		0.25	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 22:39	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 22:39	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 22:39	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 22:39	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 22:39	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 22:39	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 22:39	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 22:39	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 22:39	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 22:39	NP
cis-1,2-Dichloroethene	11		0.27	1.0	ug/L	222704	1	04/15/2016 22:39	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 22:39	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 22:39	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 22:39	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 22:39	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041416-SAG-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016 9:00:00 AM
Lab ID:	1604C59-011	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 22:39	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 22:39	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Tetrachloroethene	8.4		0.29	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 22:39	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 22:39	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 22:39	NP
Trichloroethene	4.8		0.35	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 22:39	NP
Surr: 4-Bromofluorobenzene	84.5		0	70-130	%REC	222704	1	04/15/2016 22:39	NP
Surr: Dibromofluoromethane	116		0	70-130	%REC	222704	1	04/15/2016 22:39	NP
Surr: Toluene-d8	90.5		0	70-130	%REC	222704	1	04/15/2016 22:39	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.64		0.337	1.00	mg/L	R315101	1	04/20/2016 19:31	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.290	J	0.125	5.00	ug/L	222815	1	04/20/2016 17:45	JS
Barium	16.5		0.180	10.0	ug/L	222815	1	04/20/2016 17:45	JS
Cadmium	BRL		0.184	0.700	ug/L	222815	1	04/20/2016 17:45	JS
Chromium	0.588	J	0.137	5.00	ug/L	222815	1	04/20/2016 17:45	JS
Copper	BRL		0.228	2.00	ug/L	222815	1	04/20/2016 17:45	JS
Iron	BRL		31.9	100	ug/L	222815	1	04/20/2016 17:45	JS
Lead	1.06		0.143	1.00	ug/L	222815	1	04/20/2016 17:45	JS
Manganese	1.36	J	0.508	5.00	ug/L	222815	1	04/21/2016 14:28	JS
Selenium	0.665	J	0.159	5.00	ug/L	222815	1	04/20/2016 17:45	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0154		0.00380	0.0100	mg/L	R314741	1	04/14/2016 21:03	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R315012	1	04/20/2016 15:22	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 18:35	AW
Surr: 4-Bromofluorobenzene	87.7		0	64.9-131	%REC	222718	1	04/19/2016 18:35	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041416-SAG-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016 9:00:00 AM
Lab ID:	1604C59-011	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	1.8		0.11	1.0	mg/L	R314984	1	04/14/2016 20:38	JW
Nitrate	0.11	J	0.024	0.25	mg/L	R314984	1	04/14/2016 20:38	JW
Sulfate	7.3		0.10	1.0	mg/L	R314984	1	04/14/2016 20:38	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 15:00	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 15:00	MD
Methane	BRL		1.2	4.0	ug/L	222729	1	04/18/2016 15:00	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	33.0		1.68	3.00	mg/L	R314969	1	04/20/2016 10:30	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041416-SAG-110
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016 10:00:00 AM
Lab ID:	1604C59-012	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,1,2,2-Tetrachloroethane	3.5		0.24	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,1-Dichloroethane	9.6		0.25	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,1-Dichloroethene	5.2		0.36	2.0	ug/L	222704	1	04/15/2016 23:02	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 23:02	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 23:02	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 23:02	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 23:02	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 23:02	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 23:02	NP
Benzene	2.9		0.14	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 23:02	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 23:02	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Chloroform	1.8		0.30	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 23:02	NP
cis-1,2-Dichloroethene	79		0.27	1.0	ug/L	222704	1	04/15/2016 23:02	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 23:02	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Freon-113	2.1	J	0.32	5.0	ug/L	222704	1	04/15/2016 23:02	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 23:02	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 23:02	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041416-SAG-110
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016 10:00:00 AM
Lab ID:	1604C59-012	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 23:02	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 23:02	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Tetrachloroethene	23		0.29	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 23:02	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 23:02	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 23:02	NP
Trichloroethene	72		0.35	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Vinyl chloride	1.5		0.42	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 23:02	NP
Surr: 4-Bromofluorobenzene	82.1		0	70-130	%REC	222704	1	04/15/2016 23:02	NP
Surr: Dibromofluoromethane	116		0	70-130	%REC	222704	1	04/15/2016 23:02	NP
Surr: Toluene-d8	89.3		0	70-130	%REC	222704	1	04/15/2016 23:02	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	2.32		0.337	1.00	mg/L	R315101	1	04/20/2016 20:00	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.468	J	0.125	5.00	ug/L	222815	1	04/20/2016 17:51	JS
Barium	171		0.180	10.0	ug/L	222815	1	04/20/2016 17:51	JS
Cadmium	BRL		0.184	0.700	ug/L	222815	1	04/20/2016 17:51	JS
Chromium	0.753	J	0.137	5.00	ug/L	222815	1	04/20/2016 17:51	JS
Copper	BRL		0.228	2.00	ug/L	222815	1	04/20/2016 17:51	JS
Iron	BRL		31.9	100	ug/L	222815	1	04/20/2016 17:51	JS
Lead	0.144	J	0.143	1.00	ug/L	222815	1	04/20/2016 17:51	JS
Manganese	4160		0.508	5.00	ug/L	222815	1	04/20/2016 17:51	JS
Selenium	0.875	J	0.159	5.00	ug/L	222815	1	04/20/2016 17:51	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0240		0.00380	0.0100	mg/L	R314741	1	04/14/2016 21:04	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R315012	1	04/20/2016 15:23	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 19:32	AW
Surr: 4-Bromofluorobenzene	99.8		0	64.9-131	%REC	222718	1	04/19/2016 19:32	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041416-SAG-110
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016 10:00:00 AM
Lab ID:	1604C59-012	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	12		0.11	1.0	mg/L	R314984	1	04/14/2016 20:53	JW
Nitrate	4.0		0.024	0.25	mg/L	R314984	1	04/14/2016 20:53	JW
Sulfate	13		0.10	1.0	mg/L	R314984	1	04/14/2016 20:53	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 15:04	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 15:04	MD
Methane	160		1.2	4.0	ug/L	222729	1	04/18/2016 15:04	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	36.0		1.68	3.00	mg/L	R314969	1	04/20/2016 10:30	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041416-SAG-111
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016 11:10:00 AM
Lab ID:	1604C59-013	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 23:26	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 23:26	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 23:26	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 23:26	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 23:26	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 23:26	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 23:26	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 23:26	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 23:26	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 23:26	NP
cis-1,2-Dichloroethene	2.6		0.27	1.0	ug/L	222704	1	04/15/2016 23:26	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 23:26	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 23:26	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 23:26	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 23:26	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041416-SAG-111
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016 11:10:00 AM
Lab ID:	1604C59-013	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 23:26	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 23:26	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 23:26	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 23:26	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 23:26	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 23:26	NP
Surr: 4-Bromofluorobenzene	83.7		0	70-130	%REC	222704	1	04/15/2016 23:26	NP
Surr: Dibromofluoromethane	117		0	70-130	%REC	222704	1	04/15/2016 23:26	NP
Surr: Toluene-d8	90.1		0	70-130	%REC	222704	1	04/15/2016 23:26	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.72		0.337	1.00	mg/L	R315101	1	04/20/2016 20:29	YS
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.895	J	0.125	5.00	ug/L	222815	1	04/20/2016 17:58	JS
Barium	22.1		0.180	10.0	ug/L	222815	1	04/20/2016 17:58	JS
Cadmium	BRL		0.184	0.700	ug/L	222815	1	04/20/2016 17:58	JS
Chromium	0.899	J	0.137	5.00	ug/L	222815	1	04/20/2016 17:58	JS
Copper	0.906	J	0.228	2.00	ug/L	222815	1	04/20/2016 17:58	JS
Iron	79.8	J	31.9	100	ug/L	222815	1	04/20/2016 17:58	JS
Lead	5.68		0.143	1.00	ug/L	222815	1	04/20/2016 17:58	JS
Manganese	572		0.508	5.00	ug/L	222815	1	04/20/2016 17:58	JS
Selenium	BRL		0.159	5.00	ug/L	222815	1	04/20/2016 17:58	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0501		0.00380	0.0100	mg/L	R314741	1	04/14/2016 21:06	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.083		0.010	0.020	mg/L	R315012	1	04/20/2016 15:24	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	222718	1	04/19/2016 20:01	AW
Surr: 4-Bromofluorobenzene	98.3		0	64.9-131	%REC	222718	1	04/19/2016 20:01	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041416-SAG-111
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016 11:10:00 AM
Lab ID:	1604C59-013	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	4.4		0.11	1.0	mg/L	R314984	1	04/14/2016 21:53	JW
Nitrate	0.058	J	0.024	0.25	mg/L	R314984	1	04/14/2016 21:53	JW
Sulfate	9.1		0.10	1.0	mg/L	R314984	1	04/14/2016 21:53	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	222729	1	04/18/2016 15:09	MD
Ethylene	BRL		3.5	7.0	ug/L	222729	1	04/18/2016 15:09	MD
Methane	43		1.2	4.0	ug/L	222729	1	04/18/2016 15:09	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	74.0		1.68	3.00	mg/L	R314969	1	04/20/2016 10:30	PF

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016
Lab ID:	1604C59-014	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 16:21	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 16:21	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 16:21	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 16:21	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 16:21	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 16:21	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 16:21	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 16:21	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 16:21	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 16:21	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222704	1	04/15/2016 16:21	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 16:21	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 16:21	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 16:21	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 16:21	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016
Lab ID:	1604C59-014	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 16:21	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 16:21	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 16:21	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 16:21	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 16:21	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 16:21	NP
Surr: 4-Bromofluorobenzene	84.9		0	70-130	%REC	222704	1	04/15/2016 16:21	NP
Surr: Dibromofluoromethane	115		0	70-130	%REC	222704	1	04/15/2016 16:21	NP
Surr: Toluene-d8	89.5		0	70-130	%REC	222704	1	04/15/2016 16:21	NP

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK 3
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016
Lab ID:	1604C59-015	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	222704	1	04/15/2016 16:44	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 16:44	NP
1,4-Dioxane	BRL		11	150	ug/L	222704	1	04/15/2016 16:44	NP
2-Butanone	BRL		2.9	10	ug/L	222704	1	04/15/2016 16:44	NP
2-Hexanone	BRL		3.2	10	ug/L	222704	1	04/15/2016 16:44	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	222704	1	04/15/2016 16:44	NP
Acetone	BRL		5.3	20	ug/L	222704	1	04/15/2016 16:44	NP
Benzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Bromoform	BRL		0.26	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Bromomethane	BRL		0.46	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	222704	1	04/15/2016 16:44	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	222704	1	04/15/2016 16:44	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Chloroethane	BRL		0.39	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Chloroform	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Chloromethane	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 16:44	NP
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	222704	1	04/15/2016 16:44	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Cyclohexane	BRL		1.6	2.0	ug/L	222704	1	04/15/2016 16:44	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Freon-113	BRL		0.32	5.0	ug/L	222704	1	04/15/2016 16:44	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Methyl acetate	BRL		0.31	2.0	ug/L	222704	1	04/15/2016 16:44	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	222704	1	04/15/2016 16:44	NP

Qualifiers:

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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK 3
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/14/2016
Lab ID:	1604C59-015	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	222704	1	04/15/2016 16:44	NP
Methylene chloride	BRL		0.31	5.0	ug/L	222704	1	04/15/2016 16:44	NP
Styrene	BRL		0.13	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Toluene	BRL		0.20	1.0	ug/L	222704	1	04/15/2016 16:44	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	222704	1	04/15/2016 16:44	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	222704	1	04/15/2016 16:44	NP
Trichloroethene	BRL		0.35	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Vinyl chloride	BRL		0.42	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	222704	1	04/15/2016 16:44	NP
Surr: 4-Bromofluorobenzene	84.3		0	70-130	%REC	222704	1	04/15/2016 16:44	NP
Surr: Dibromofluoromethane	115		0	70-130	%REC	222704	1	04/15/2016 16:44	NP
Surr: Toluene-d8	89.5		0	70-130	%REC	222704	1	04/15/2016 16:44	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client GHD Work Order Number 1604C59

Checklist completed by [signature] 4/14/16
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (0°≤6°C)*	Yes ✓	No __	

Cooler #1 2.5 Cooler #2 1.9 Cooler #3 1.4 Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes __	No ✓
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓ No __
Water - pH acceptable upon receipt?	Yes ✓	No __ Not Applicable __

Adjusted? _____ Checked by AD

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\I\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1604C59

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604C59-001A	GW-013926-041316-SAG-105	4/13/2016 10:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-001B	GW-013926-041316-SAG-105	4/13/2016 10:15:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-001C	GW-013926-041316-SAG-105	4/13/2016 10:15:00AM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-001D	GW-013926-041316-SAG-105	4/13/2016 10:15:00AM	Groundwater	Alkalinity by SM2320B			04/19/2016
1604C59-001E	GW-013926-041316-SAG-105	4/13/2016 10:15:00AM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-001F	GW-013926-041316-SAG-105	4/13/2016 10:15:00AM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-001G	GW-013926-041316-SAG-105	4/13/2016 10:15:00AM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-001H	GW-013926-041316-SAG-105	4/13/2016 10:15:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-001I	GW-013926-041316-SAG-105	4/13/2016 10:15:00AM	Groundwater	ION SCAN			04/14/2016
1604C59-002A	GW-013926-041316-SAG-106	4/13/2016 11:55:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-002B	GW-013926-041316-SAG-106	4/13/2016 11:55:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-002C	GW-013926-041316-SAG-106	4/13/2016 11:55:00AM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-002D	GW-013926-041316-SAG-106	4/13/2016 11:55:00AM	Groundwater	Alkalinity by SM2320B			04/19/2016
1604C59-002E	GW-013926-041316-SAG-106	4/13/2016 11:55:00AM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-002F	GW-013926-041316-SAG-106	4/13/2016 11:55:00AM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-002G	GW-013926-041316-SAG-106	4/13/2016 11:55:00AM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-002H	GW-013926-041316-SAG-106	4/13/2016 11:55:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-002I	GW-013926-041316-SAG-106	4/13/2016 11:55:00AM	Groundwater	ION SCAN			04/14/2016
1604C59-003A	GW-013926-041316-SAG-107	4/13/2016 2:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-003B	GW-013926-041316-SAG-107	4/13/2016 2:35:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-003C	GW-013926-041316-SAG-107	4/13/2016 2:35:00PM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-003D	GW-013926-041316-SAG-107	4/13/2016 2:35:00PM	Groundwater	Alkalinity by SM2320B			04/19/2016
1604C59-003E	GW-013926-041316-SAG-107	4/13/2016 2:35:00PM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-003F	GW-013926-041316-SAG-107	4/13/2016 2:35:00PM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-003G	GW-013926-041316-SAG-107	4/13/2016 2:35:00PM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-003H	GW-013926-041316-SAG-107	4/13/2016 2:35:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-003I	GW-013926-041316-SAG-107	4/13/2016 2:35:00PM	Groundwater	ION SCAN			04/14/2016
1604C59-004A	GW-013926-041316-SAG-108	4/13/2016 4:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-004B	GW-013926-041316-SAG-108	4/13/2016 4:45:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016

Analytical Environmental Services, Inc Date: 27-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1604C59

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604C59-004C	GW-013926-041316-SAG-108	4/13/2016 4:45:00PM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-004D	GW-013926-041316-SAG-108	4/13/2016 4:45:00PM	Groundwater	Alkalinity by SM2320B			04/19/2016
1604C59-004E	GW-013926-041316-SAG-108	4/13/2016 4:45:00PM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-004F	GW-013926-041316-SAG-108	4/13/2016 4:45:00PM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-004G	GW-013926-041316-SAG-108	4/13/2016 4:45:00PM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-004H	GW-013926-041316-SAG-108	4/13/2016 4:45:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-004I	GW-013926-041316-SAG-108	4/13/2016 4:45:00PM	Groundwater	ION SCAN			04/14/2016
1604C59-005A	TRIP BLANK	4/14/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-006A	GW-013926-041316-MRB-006	4/13/2016 9:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-006B	GW-013926-041316-MRB-006	4/13/2016 9:30:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-006C	GW-013926-041316-MRB-006	4/13/2016 9:30:00AM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-006D	GW-013926-041316-MRB-006	4/13/2016 9:30:00AM	Groundwater	Alkalinity by SM2320B			04/19/2016
1604C59-006E	GW-013926-041316-MRB-006	4/13/2016 9:30:00AM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-006F	GW-013926-041316-MRB-006	4/13/2016 9:30:00AM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-006G	GW-013926-041316-MRB-006	4/13/2016 9:30:00AM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-006H	GW-013926-041316-MRB-006	4/13/2016 9:30:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-006I	GW-013926-041316-MRB-006	4/13/2016 9:30:00AM	Groundwater	ION SCAN			04/14/2016
1604C59-007A	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-007B	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-007C	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-007D	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	Alkalinity by SM2320B			04/19/2016
1604C59-007E	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-007F	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-007G	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-007H	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-007I	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	ION SCAN			04/14/2016
1604C59-007I	GW-013926-041316-MRB-007	4/13/2016 11:05:00AM	Groundwater	ION SCAN			04/15/2016
1604C59-008A	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-008B	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1604C59

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604C59-008C	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-008D	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	Alkalinity by SM2320B			04/19/2016
1604C59-008E	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-008F	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-008G	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-008H	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-008I	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	ION SCAN			04/14/2016
1604C59-008I	GW-013926-041316-MRB-008	4/13/2016 11:15:00AM	Groundwater	ION SCAN			04/15/2016
1604C59-009A	GW-013926-041316-MRB-009	4/13/2016 2:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-009B	GW-013926-041316-MRB-009	4/13/2016 2:40:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-009C	GW-013926-041316-MRB-009	4/13/2016 2:40:00PM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-009D	GW-013926-041316-MRB-009	4/13/2016 2:40:00PM	Groundwater	Alkalinity by SM2320B			04/19/2016
1604C59-009E	GW-013926-041316-MRB-009	4/13/2016 2:40:00PM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-009F	GW-013926-041316-MRB-009	4/13/2016 2:40:00PM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-009G	GW-013926-041316-MRB-009	4/13/2016 2:40:00PM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-009H	GW-013926-041316-MRB-009	4/13/2016 2:40:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-009I	GW-013926-041316-MRB-009	4/13/2016 2:40:00PM	Groundwater	ION SCAN			04/14/2016
1604C59-010A	GW-013926-041316-MRB-010	4/13/2016 4:18:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-010B	GW-013926-041316-MRB-010	4/13/2016 4:18:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-010C	GW-013926-041316-MRB-010	4/13/2016 4:18:00PM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-010D	GW-013926-041316-MRB-010	4/13/2016 4:18:00PM	Groundwater	Alkalinity by SM2320B			04/19/2016
1604C59-010E	GW-013926-041316-MRB-010	4/13/2016 4:18:00PM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-010F	GW-013926-041316-MRB-010	4/13/2016 4:18:00PM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-010G	GW-013926-041316-MRB-010	4/13/2016 4:18:00PM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-010H	GW-013926-041316-MRB-010	4/13/2016 4:18:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-010I	GW-013926-041316-MRB-010	4/13/2016 4:18:00PM	Groundwater	ION SCAN			04/14/2016
1604C59-011A	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-011B	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-011C	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1604C59

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604C59-011D	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	Alkalinity by SM2320B			04/20/2016
1604C59-011E	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-011F	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-011G	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-011G	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/21/2016
1604C59-011H	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-011I	GW-013926-041416-SAG-109	4/14/2016 9:00:00AM	Groundwater	ION SCAN			04/14/2016
1604C59-012A	GW-013926-041416-SAG-110	4/14/2016 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-012B	GW-013926-041416-SAG-110	4/14/2016 10:00:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-012C	GW-013926-041416-SAG-110	4/14/2016 10:00:00AM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-012D	GW-013926-041416-SAG-110	4/14/2016 10:00:00AM	Groundwater	Alkalinity by SM2320B			04/20/2016
1604C59-012E	GW-013926-041416-SAG-110	4/14/2016 10:00:00AM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-012F	GW-013926-041416-SAG-110	4/14/2016 10:00:00AM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-012G	GW-013926-041416-SAG-110	4/14/2016 10:00:00AM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-012H	GW-013926-041416-SAG-110	4/14/2016 10:00:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-012I	GW-013926-041416-SAG-110	4/14/2016 10:00:00AM	Groundwater	ION SCAN			04/14/2016
1604C59-013A	GW-013926-041416-SAG-111	4/14/2016 11:10:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-013B	GW-013926-041416-SAG-111	4/14/2016 11:10:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/19/2016 9:00:00 AM	04/19/2016
1604C59-013C	GW-013926-041416-SAG-111	4/14/2016 11:10:00AM	Groundwater	GC Analysis of Gaseous Samples		4/18/2016 9:19:23 AM	04/18/2016
1604C59-013D	GW-013926-041416-SAG-111	4/14/2016 11:10:00AM	Groundwater	Alkalinity by SM2320B			04/20/2016
1604C59-013E	GW-013926-041416-SAG-111	4/14/2016 11:10:00AM	Groundwater	Total Organic Carbon (TOC)			04/20/2016
1604C59-013F	GW-013926-041416-SAG-111	4/14/2016 11:10:00AM	Groundwater	Phosphorus, ortho			04/14/2016
1604C59-013G	GW-013926-041416-SAG-111	4/14/2016 11:10:00AM	Groundwater	Total Metals by ICP/MS		4/19/2016 3:10:00 PM	04/20/2016
1604C59-013H	GW-013926-041416-SAG-111	4/14/2016 11:10:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/20/2016
1604C59-013I	GW-013926-041416-SAG-111	4/14/2016 11:10:00AM	Groundwater	ION SCAN			04/14/2016
1604C59-014A	TRIP BLANK	4/14/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-015A	TRIP BLANK 3	4/14/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016
1604C59-016A	TRIP BLANK 4	4/14/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/15/2016 2:39:00 PM	04/15/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222704

Sample ID: **MB-222704**	Client ID:		Units: **ug/L**	Prep Date: **04/15/2016**	Run No: **314749**
SampleType: **MBLK**	TestCode: **Volatile Organic Compounds by GC/MS**	**SW8260B**	BatchID: **222704**	Analysis Date: **04/15/2016**	Seq No: **6773045**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2,4-Trimethylbenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3,5-Trimethylbenzene	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222704

Sample ID: **MB-222704** Client ID: Units: **ug/L** Prep Date: **04/15/2016** Run No: **314749**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222704** Analysis Date: **04/15/2016** Seq No: **6773045**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	40.49	0	50.00		81.0	70	130				
Surr: Dibromofluoromethane	56.38	0	50.00		113	70	130				
Surr: Toluene-d8	43.62	0	50.00		87.2	70	130				

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222704

Sample ID: **LCS-222704** Client ID: Units: **ug/L** Prep Date: **04/15/2016** Run No: **314749**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222704** Analysis Date: **04/15/2016** Seq No: **6773024**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.93	1.0	50.00		99.9	70	130				
1,1,2,2-Tetrachloroethane	38.56	1.0	50.00		77.1	70	130				
1,1,2-Trichloroethane	46.31	1.0	50.00		92.6	70	130				
1,1-Dichloroethane	40.17	1.0	50.00		80.3	70	130				
1,1-Dichloroethene	45.39	2.0	50.00		90.8	60	140				
1,2,4-Trichlorobenzene	40.61	1.0	50.00		81.2	70	130				
1,2,4-Trimethylbenzene	36.82	1.0	50.00		73.6	70	130				
1,2-Dibromo-3-chloropropane	42.55	1.0	50.00		85.1	70	130				
1,2-Dichlorobenzene	41.85	1.0	50.00		83.7	70	130				
1,2-Dichloroethane	50.78	1.0	50.00		102	70	130				
1,2-Dichloropropane	43.23	1.0	50.00		86.5	70	130				
1,3,5-Trimethylbenzene	38.42	1.0	50.00		76.8	70	130				
1,3-Dichlorobenzene	40.72	1.0	50.00		81.4	70	130				
1,4-Dichlorobenzene	41.16	1.0	50.00		82.3	70	130				
Benzene	43.66	1.0	50.00		87.3	70	130				
Bromodichloromethane	45.02	1.0	50.00		90.0	70	130				
Bromoform	50.10	1.0	50.00		100	70	130				
Carbon tetrachloride	60.42	2.0	50.00		121	70	130				
Chlorobenzene	45.02	1.0	50.00		90.0	70	130				
Chloroform	46.08	1.0	50.00		92.2	70	130				
cis-1,2-Dichloroethene	38.65	1.0	50.00		77.3	70	130				
cis-1,3-Dichloropropene	44.95	1.0	50.00		89.9	70	130				
Dibromochloromethane	46.73	1.0	50.00		93.5	70	130				
Ethylbenzene	44.68	1.0	50.00		89.4	70	130				
Isopropylbenzene	38.70	1.0	50.00		77.4	70	130				
Methylene chloride	41.46	5.0	50.00		82.9	70	130				
Styrene	45.04	1.0	50.00		90.1	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222704

Sample ID: **LCS-222704** Client ID: Units: **ug/L** Prep Date: **04/15/2016** Run No: **314749**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222704** Analysis Date: **04/15/2016** Seq No: **6773024**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	51.72	1.0	50.00		103	70	130				
Toluene	44.20	1.0	50.00		88.4	70	130				
trans-1,2-Dichloroethene	39.96	2.0	50.00		79.9	70	130				
trans-1,3-Dichloropropene	52.29	2.0	50.00		105	70	130				
Trichloroethene	49.53	1.0	50.00		99.1	70	130				
Vinyl chloride	49.32	1.0	50.00		98.6	70	130				
Xylenes, Total	136.3	1.0	150.0		90.9	70	130				
Surr: 4-Bromofluorobenzene	51.15	0	50.00		102	70	130				
Surr: Dibromofluoromethane	55.34	0	50.00		111	70	130				
Surr: Toluene-d8	47.85	0	50.00		95.7	70	130				

Sample ID: **1604C59-004AMS** Client ID: **GW-013926-041316-SAG-108** Units: **ug/L** Prep Date: **04/15/2016** Run No: **314749**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222704** Analysis Date: **04/15/2016** Seq No: **6774210**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	2997	50	2500		120	64.5	140				
1,1,2,2-Tetrachloroethane	2272	50	2500		90.9	66.5	128				
1,1,2-Trichloroethane	2842	50	2500		114	73.9	127				
1,1-Dichloroethane	2508	50	2500		100	61.6	127				
1,1-Dichloroethene	2670	100	2500		107	60	150				
1,2,4-Trichlorobenzene	2359	50	2500		94.4	60.4	131				
1,2,4-Trimethylbenzene	2184	50	2500		87.3	70.2	129				
1,2-Dibromo-3-chloropropane	2602	50	2500		104	50.2	131				
1,2-Dichlorobenzene	2446	50	2500		97.8	72	123				
1,2-Dichloroethane	3098	50	2500		124	66.5	133				
1,2-Dichloropropane	2604	50	2500		104	73	126				
1,3,5-Trimethylbenzene	2307	50	2500		92.3	66.1	133				
1,3-Dichlorobenzene	2455	50	2500		98.2	72.5	123				

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222704

Sample ID: **1604C59-004AMS** Client ID: **GW-013926-041316-SAG-108** Units: **ug/L** Prep Date: **04/15/2016** Run No: **314749**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222704** Analysis Date: **04/15/2016** Seq No: **6774210**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	2421	50	2500		96.8	71.1	121				
Benzene	2626	50	2500		105	70.1	132				
Bromodichloromethane	2746	50	2500		110	62.2	131				
Bromoform	2934	50	2500		117	50.5	138				
Carbon tetrachloride	3602	100	2500		144	60	149				
Chlorobenzene	2688	50	2500		108	70.9	131				
Chloroform	2822	50	2500		113	67.7	128				
cis-1,2-Dichloroethene	2420	50	2500		96.8	68.8	133				
cis-1,3-Dichloropropene	2740	50	2500		110	53.8	134				
Dibromochloromethane	2784	50	2500		111	57	135				
Ethylbenzene	2782	50	2500		111	77.8	129				
Isopropylbenzene	2348	50	2500		93.9	63	132				
Methylene chloride	2477	250	2500		99.1	60.5	124				
Styrene	2808	50	2500		112	73.3	133				
Tetrachloroethene	3060	50	2500		122	69.6	140				
Toluene	2664	50	2500		107	70.1	133				
trans-1,2-Dichloroethene	2448	100	2500		97.9	63.7	127				
trans-1,3-Dichloropropene	3258	100	2500		130	56.2	127				S
Trichloroethene	2944	50	2500		118	70	136				
Vinyl chloride	2798	50	2500		112	56.8	141				
Xylenes, Total	8315	50	7500		111	74.7	133				
Surr: 4-Bromofluorobenzene	2685	0	2500		107	70	130				
Surr: Dibromofluoromethane	2742	0	2500		110	70	130				
Surr: Toluene-d8	2442	0	2500		97.7	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222704

Sample ID: **1604C59-004AMSD** Client ID: **GW-013926-041316-SAG-108** Units: **ug/L** Prep Date: **04/15/2016** Run No: **314749**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222704** Analysis Date: **04/15/2016** Seq No: **6774211**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	2932	50	2500		117	64.5	140	2997	2.21	20	
1,1,2,2-Tetrachloroethane	2232	50	2500		89.3	66.5	128	2272	1.82	20	
1,1,2-Trichloroethane	2668	50	2500		107	73.9	127	2842	6.33	20	
1,1-Dichloroethane	2360	50	2500		94.4	61.6	127	2508	6.08	20	
1,1-Dichloroethene	2611	100	2500		104	60	150	2670	2.25	17.7	
1,2,4-Trichlorobenzene	2240	50	2500		89.6	60.4	131	2359	5.18	24	
1,2,4-Trimethylbenzene	2128	50	2500		85.1	70.2	129	2184	2.60	20	
1,2-Dibromo-3-chloropropane	2502	50	2500		100	50.2	131	2602	3.94	19.5	
1,2-Dichlorobenzene	2422	50	2500		96.9	72	123	2446	0.966	20	
1,2-Dichloroethane	2970	50	2500		119	66.5	133	3098	4.22	20	
1,2-Dichloropropane	2498	50	2500		99.9	73	126	2604	4.17	20	
1,3,5-Trimethylbenzene	2235	50	2500		89.4	66.1	133	2307	3.17	20	
1,3-Dichlorobenzene	2406	50	2500		96.2	72.5	123	2455	2.04	20	
1,4-Dichlorobenzene	2374	50	2500		95.0	71.1	121	2421	1.94	20	
Benzene	2474	50	2500		99.0	70.1	132	2626	5.98	20	
Bromodichloromethane	2597	50	2500		104	62.2	131	2746	5.56	20	
Bromoform	2960	50	2500		118	50.5	138	2934	0.882	17.9	
Carbon tetrachloride	3453	100	2500		138	60	149	3602	4.24	20	
Chlorobenzene	2612	50	2500		104	70.9	131	2688	2.91	20	
Chloroform	2702	50	2500		108	67.7	128	2822	4.33	20	
cis-1,2-Dichloroethene	2329	50	2500		93.2	68.8	133	2420	3.83	20	
cis-1,3-Dichloropropene	2594	50	2500		104	53.8	134	2740	5.51	20	
Dibromochloromethane	2781	50	2500		111	57	135	2784	0.108	20	
Ethylbenzene	2638	50	2500		106	77.8	129	2782	5.30	20	
Isopropylbenzene	2276	50	2500		91.0	63	132	2348	3.11	20	
Methylene chloride	2378	250	2500		95.1	60.5	124	2477	4.08	17.4	
Styrene	2645	50	2500		106	73.3	133	2808	5.98	20	

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222704

Sample ID: **1604C59-004AMSD** Client ID: **GW-013926-041316-SAG-108** Units: **ug/L** Prep Date: **04/15/2016** Run No: **314749**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **222704** Analysis Date: **04/15/2016** Seq No: **6774211**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	3001	50	2500		120	69.6	140	3060	1.93	20	
Toluene	2487	50	2500		99.5	70.1	133	2664	6.89	20	
trans-1,2-Dichloroethene	2377	100	2500		95.1	63.7	127	2448	2.96	20	
trans-1,3-Dichloropropene	3078	100	2500		123	56.2	127	3258	5.68	20	
Trichloroethene	2866	50	2500		115	70	136	2944	2.69	20	
Vinyl chloride	2718	50	2500		109	56.8	141	2798	2.94	18.4	
Xylenes, Total	7924	50	7500		106	74.7	133	8315	4.81	22.7	
Surr: 4-Bromofluorobenzene	2630	0	2500		105	70	130	2685	0	0	
Surr: Dibromofluoromethane	2715	0	2500		109	70	130	2742	0	0	
Surr: Toluene-d8	2334	0	2500		93.3	70	130	2442	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222718

Sample ID: **MB-222718** Client ID: Units: **ug/L** Prep Date: **04/19/2016** Run No: **314967**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222718** Analysis Date: **04/19/2016** Seq No: **6778624**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.105	0	5.000		102	64.9	131				

Sample ID: **LCS-222718** Client ID: Units: **ug/L** Prep Date: **04/19/2016** Run No: **314967**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222718** Analysis Date: **04/19/2016** Seq No: **6778625**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1000	0.020	0.1000		100	60	140				
Surr: 4-Bromofluorobenzene	5.309	0	5.000		106	64.9	131				

Sample ID: **LCSD-222718** Client ID: Units: **ug/L** Prep Date: **04/19/2016** Run No: **314967**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222718** Analysis Date: **04/19/2016** Seq No: **6778626**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1000	0.020	0.1000		100	60	140	0.1000	0	20	
Surr: 4-Bromofluorobenzene	5.310	0	5.000		106	64.9	131	5.309	0	0	

Sample ID: **1604C59-001BMS** Client ID: **GW-013926-041316-SAG-105** Units: **ug/L** Prep Date: **04/19/2016** Run No: **314967**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **222718** Analysis Date: **04/19/2016** Seq No: **6778629**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1006	0.020	0.1016		99.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.702	0	5.080		112	64.9	131				

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222729

Sample ID: **MB-222729** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775305**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9.0									
Ethylene	BRL	7.0									
Methane	BRL	4.0									

Sample ID: **LCS-222729** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775306**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	120.8	9.0	200.0		60.4	40.9	115				
Ethylene	81.52	7.0	200.0		40.8	26.8	115				
Methane	135.1	4.0	200.0		67.6	45.9	115				

Sample ID: **LCSD-222729** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775307**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	115.0	9.0	200.0		57.5	40.9	115	120.8	4.96	20	
Ethylene	78.71	7.0	200.0		39.4	26.8	115	81.52	3.50	20	
Methane	126.1	4.0	200.0		63.0	45.9	115	135.1	6.93	20	

Sample ID: **1604A68-002BMS** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775333**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	108.4	9.0	200.0		54.2	40.5	115				
Ethylene	72.14	7.0	200.0		36.1	23	115				
Methane	124.3	4.0	200.0	1.297	61.5	40	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222729

Sample ID: **1604A68-002BMSD** Client ID: Units: **ug/L** Prep Date: **04/18/2016** Run No: **314833**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **222729** Analysis Date: **04/18/2016** Seq No: **6775335**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	108.1	9.0	200.0		54.1	40.5	115	108.4	0.284	20	
Ethylene	73.21	7.0	200.0		36.6	23	115	72.14	1.47	20	
Methane	123.2	4.0	200.0	1.297	61.0	40	115	124.3	0.882	20	

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222815

Sample ID: **MB-222815** Client ID: Units: **ug/L** Prep Date: **04/19/2016** Run No: **315088**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222815** Analysis Date: **04/20/2016** Seq No: **6781422**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00									
Barium	0.5150	10.0									J
Cadmium	BRL	0.700									
Chromium	0.4010	5.00									J
Copper	BRL	2.00									
Iron	BRL	100									
Lead	BRL	1.00									
Manganese	BRL	5.00									
Selenium	BRL	5.00									

Sample ID: **LCS-222815** Client ID: Units: **ug/L** Prep Date: **04/19/2016** Run No: **315088**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222815** Analysis Date: **04/20/2016** Seq No: **6781423**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	104.3	5.00	100.0		104	80	120				
Barium	100.8	10.0	100.0	0.5150	100	80	120				
Cadmium	104.3	0.700	100.0		104	80	120				
Chromium	101.0	5.00	100.0	0.4010	101	80	120				
Copper	100.4	2.00	100.0		100	80	120				
Iron	1045	100	1000		104	80	120				
Lead	99.69	1.00	100.0		99.7	80	120				
Manganese	103.2	5.00	100.0		103	80	120				
Selenium	106.6	5.00	100.0		107	80	120				

Sample ID: **1604C59-001GMS** Client ID: **GW-013926-041316-SAG-105** Units: **ug/L** Prep Date: **04/19/2016** Run No: **315088**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222815** Analysis Date: **04/20/2016** Seq No: **6781425**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: 222815

Sample ID: **1604C59-001GMS** Client ID: **GW-013926-041316-SAG-105** Units: **ug/L** Prep Date: **04/19/2016** Run No: **315088**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222815** Analysis Date: **04/20/2016** Seq No: **6781425**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	99.59	5.00	100.0	0.3660	99.2	75	125				
Barium	115.0	10.0	100.0	17.39	97.6	75	125				
Cadmium	102.6	0.700	100.0	0.1860	102	75	125				
Chromium	94.69	5.00	100.0	1.035	93.7	75	125				
Copper	96.72	2.00	100.0		96.7	75	125				
Iron	1027	100	1000	37.93	98.9	75	125				
Lead	97.69	1.00	100.0	0.5230	97.2	75	125				
Manganese	155.3	5.00	100.0	57.79	97.5	75	125				
Selenium	103.5	5.00	100.0	1.088	102	75	125				

Sample ID: **1604C59-001GMSD** Client ID: **GW-013926-041316-SAG-105** Units: **ug/L** Prep Date: **04/19/2016** Run No: **315088**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **222815** Analysis Date: **04/20/2016** Seq No: **6781426**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	102.2	5.00	100.0	0.3660	102	75	125	99.59	2.59	20	
Barium	116.6	10.0	100.0	17.39	99.2	75	125	115.0	1.38	20	
Cadmium	104.3	0.700	100.0	0.1860	104	75	125	102.6	1.64	20	
Chromium	96.55	5.00	100.0	1.035	95.5	75	125	94.69	1.95	20	
Copper	97.60	2.00	100.0		97.6	75	125	96.72	0.906	20	
Iron	1028	100	1000	37.93	99.0	75	125	1027	0.097	20	
Lead	98.96	1.00	100.0	0.5230	98.4	75	125	97.69	1.29	20	
Manganese	158.2	5.00	100.0	57.79	100	75	125	155.3	1.85	20	
Selenium	106.1	5.00	100.0	1.088	105	75	125	103.5	2.48	20	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: R314741

Sample ID: **MB-R314741** Client ID: Units: **mg/L** Prep Date: Run No: **314741**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314741** Analysis Date: **04/14/2016** Seq No: **6772862**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R314741** Client ID: Units: **mg/L** Prep Date: Run No: **314741**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314741** Analysis Date: **04/14/2016** Seq No: **6772863**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09890	0.0100	0.1000		98.9	90	110				

Sample ID: **1604C59-002FMS** Client ID: **GW-013926-041316-SAG-106** Units: **mg/L** Prep Date: Run No: **314741**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314741** Analysis Date: **04/14/2016** Seq No: **6772878**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1100	0.0100	0.1000	0.01030	99.7	90	110				

Sample ID: **1604C59-003FMS** Client ID: **GW-013926-041316-SAG-107** Units: **mg/L** Prep Date: Run No: **314741**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314741** Analysis Date: **04/14/2016** Seq No: **6772879**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1180	0.0100	0.1000	0.02080	97.2	90	110				

Sample ID: **1604C59-002FMSD** Client ID: **GW-013926-041316-SAG-106** Units: **mg/L** Prep Date: Run No: **314741**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R314741** Analysis Date: **04/14/2016** Seq No: **6772880**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09480	0.0100	0.1000	0.01030	84.5	90	110	0.1100	14.8	20	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: R314814

Sample ID: **MB-R314814** Client ID: Units: **mg/L** Prep Date: Run No: **314814**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R314814** Analysis Date: **04/18/2016** Seq No: **6774848**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R314814** Client ID: Units: **mg/L** Prep Date: Run No: **314814**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R314814** Analysis Date: **04/18/2016** Seq No: **6774849**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	123.0	3.00	125.0		98.4	75	125				

Sample ID: **1604A39-002EDUP** Client ID: Units: **mg/L** Prep Date: Run No: **314814**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R314814** Analysis Date: **04/18/2016** Seq No: **6774884**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00						0	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: R314969

Sample ID: **MB-R314969** Client ID: Units: **mg/L** Prep Date: Run No: **314969**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R314969** Analysis Date: **04/20/2016** Seq No: **6778647**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R314969** Client ID: Units: **mg/L** Prep Date: Run No: **314969**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R314969** Analysis Date: **04/20/2016** Seq No: **6778648**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	122.0	3.00	125.0		97.6	75	125				

Sample ID: **1604C59-011DDUP** Client ID: **GW-013926-041416-SAG-109** Units: **mg/L** Prep Date: Run No: **314969**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R314969** Analysis Date: **04/20/2016** Seq No: **6778661**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	33.00	3.00						33.00	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: R314984

Sample ID: **MB-R314984** Client ID: Units: **mg/L** Prep Date: Run No: **314984**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R314984** Analysis Date: **04/14/2016** Seq No: **6778986**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	0.1145	1.0									J
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R314984** Client ID: Units: **mg/L** Prep Date: Run No: **314984**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R314984** Analysis Date: **04/14/2016** Seq No: **6778985**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	4.851	1.0	5.000	0.1145	94.7	90	110				
Nitrate	4.751	0.25	5.000		95.0	90	110				
Sulfate	23.25	1.0	25.00		93.0	90	110				

Sample ID: **1604B62-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **314984**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R314984** Analysis Date: **04/14/2016** Seq No: **6778989**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	77.84	10	50.00	35.65	84.4	90	110				S
Nitrate	57.11	2.5	50.00	7.523	99.2	90	110				
Sulfate	259.1	10	250.0	27.11	92.8	90	110				

Sample ID: **1604B63-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **314984**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R314984** Analysis Date: **04/14/2016** Seq No: **6778993**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	77.66	10	50.00	37.97	79.4	90	110				S
Nitrate	52.39	2.5	50.00	4.598	95.6	90	110				
Sulfate	264.6	10	250.0	31.79	93.1	90	110				

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: R314984

Sample ID: **1604B62-002BMSD** Client ID:
SampleType: **MSD** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date:
BatchID: **R314984** Analysis Date: **04/14/2016**
Run No: **314984**
Seq No: **6778990**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	77.58	10	50.00	35.65	83.9	90	110	77.84	0.334	20	S
Nitrate	57.19	2.5	50.00	7.523	99.3	90	110	57.11	0.139	20	
Sulfate	259.8	10	250.0	27.11	93.1	90	110	259.1	0.287	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: R315012

Sample ID: **MB-R315012** Client ID: Units: **mg/L** Prep Date: Run No: **315012**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R315012** Analysis Date: **04/20/2016** Seq No: **6779993**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R315012** Client ID: Units: **mg/L** Prep Date: Run No: **315012**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R315012** Analysis Date: **04/20/2016** Seq No: **6779994**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9790	0.020	1.000		97.9	90	110				

Sample ID: **1604C59-001HMS** Client ID: **GW-013926-041316-SAG-105** Units: **mg/L** Prep Date: Run No: **315012**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R315012** Analysis Date: **04/20/2016** Seq No: **6779996**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9720	0.020	1.000		97.2	90	110				

Sample ID: **1604E90-001BMS** Client ID: Units: **mg/L** Prep Date: Run No: **315012**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R315012** Analysis Date: **04/20/2016** Seq No: **6780014**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9890	0.020	1.000		98.9	90	110				

Sample ID: **1604C59-001HMSD** Client ID: **GW-013926-041316-SAG-105** Units: **mg/L** Prep Date: Run No: **315012**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R315012** Analysis Date: **04/20/2016** Seq No: **6779997**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9510	0.020	1.000		95.1	90	110	0.9720	2.18	30	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Date: 27-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604C59

ANALYTICAL QC SUMMARY REPORT

BatchID: R315101

Sample ID: **MB-R315101** Client ID: Units: **mg/L** Prep Date: Run No: **315101**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R315101** Analysis Date: **04/20/2016** Seq No: **6781530**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R315101** Client ID: Units: **mg/L** Prep Date: Run No: **315101**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R315101** Analysis Date: **04/20/2016** Seq No: **6781529**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	26.64	1.00	25.00		107	90	110				

Sample ID: **1604C59-001EMS** Client ID: **GW-013926-041316-SAG-105** Units: **mg/L** Prep Date: Run No: **315101**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R315101** Analysis Date: **04/20/2016** Seq No: **6781546**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	26.28	1.00	25.00	1.436	99.4	80	120				

Sample ID: **1604C59-001EMSD** Client ID: **GW-013926-041316-SAG-105** Units: **mg/L** Prep Date: Run No: **315101**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R315101** Analysis Date: **04/20/2016** Seq No: **6781547**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.06	1.00	25.00	1.436	94.5	80	120	26.28	4.75	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Attachment C

All Headers VOCs and HAPs Calculations

Appendix C

All Headers VOCs and HAPs Calculations
April 11, 2016 Pre-Carbon
Aqua-Tech Environmenta, Inc. Super Fund Site
Greer, Spartanburg County, South Carolina

	Acetone	Benzene[g]	Carbon Disulfide[g]	Chlorobenzene[g]	Chloroethane[g]	Chloromethane	1,1-Dichloroethane[g]	1,1-Dichloroethylene[g]	Dichlorodifluoro-methane	trans-1,2-Dichloroethylene	cis-1,2-Dichloroethylene	m-Dichlorobenzene	o-Dichlorobenzene	p-Dichlorobenzene[g]
Molecular Weight [a]	58.08	78.11	76.14	112.6	64.52	50.46	98.96	96.94	120.91	96.94	96.94	147	147	147
Results in µg/m³ [c]	13.0	19.0	2.6	3.5	0.0	0.0	91.0	7.3	0.0	15.0	2200.0	0.0	3.3	6.6
nversion of µg/m³ to mg/m³ [d]	0.01	0.02	0.00	0.00	0.00	0.00	0.09	0.01	0.00	0.02	2.20	0.00	0.00	0.01
ent Flow (SCFM) *370*														
mg/m³ to rate of lbs/hr [e]	0.00002	0.00003	0.00000	0.00000	-	-	0.00013	0.00001	-	0.00002	0.00305	-	0.00000	0.00001
lbs/hr to tons/yr [f]	0.000079	0.000115	0.000016	0.000021	0.000000	0.000000	0.000552	0.000044	0.000000	0.000091	0.013356	0.000000	0.000020	0.000040

Notes:

a Molecular weight provided on laboratory report

b µg/m³ is the initial unit of measurement in which the compound is reported, reported on laboratory report

c Please refer to Equation 1 to the right

d 1,000 µg is equal to 1 mg

e Please refer to Equation 2 to the right

g These compounds are considered HAPs (Hazardous Air Pollutants)

µg/m³	micrograms per cubic meter
mg/m³	milligrams per cubic meter
SCFM	Standard cubic feet per minute
lbs/hr	pounds per hour
tons/yr	tons per year
ft³	cubic feet
L	liter
nL	nanoliter

1 m³ = 35.31 ft³

1 lb = 453,592 mg

Equations and Conversions

*Calculations made with assumption of standard Temperature and Pressure, using the constant of 24.45 L air

*Example calculation using Acetone

1. *Micrograms per cubic meter to pounds per hour*

$$\frac{\left(\frac{26.6\mu g}{m^3}\right)\left(\frac{1mg}{1\times10^3\mu g}\right)\left(\frac{370ft^3}{\min}\right)\left(\frac{60\min}{hr}\right)}{\left(\frac{35.31ft^3}{m^3}\right)\left(\frac{453{,}592mg}{lb}\right)} = 0.0000368lb/hr$$

2. *Hourly rate to tons per year*

$$\left(\frac{0.0000368lb}{hr}\right)\left(\frac{24hr}{day}\right)\left(\frac{365day}{yr}\right)\left(\frac{1ton}{2000lb}\right) = 0.000162ton/yr$$

Appendix C

All Headers VOCs and HAPs Calculations
April 11, 2016 Pre-Carbon
Aqua-Tech Environmenta, Inc. Super Fund Site
Greer, Spartanburg County, South Carolina

	Ethylbenzene[g]	Freon 113	Methylene Chloride[g]	Methyl ethyl ketone[g]	Propylene	1,1,1-Trichloroethane[g]	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Tetrachloroethylene[g]	Toluene[g]	Trichloroethylene[g]	Trichlorofluoromethane	THC as Gas	Vinyl Chloride[g]	m,p - Xylene[g]	o-Xylene[g]
Molecular Weight [a]	106.2	187.4	84.94	72.11	42.08	133.4	120.2	120.2	165.8	92.14	131.4	137.38	314.46	62.5	106.2	106.2
Results in µg/m³ [c]	8.0	130.0	5.2	0.0	0.0	400.0	0.0	0.0	1100.0	73.0	3000.0	2.8		0.0	12.0	25.0
nversion of µg/m³ to mg/m³ [d]	0.01	0.13	0.01	0.00	0.00	0.40	0.00	0.00	1.10	0.07	3.00	0.00	0.00	0.00	0.01	0.03
ent Flow (SCFM) 370																
mg/m³ to rate of lbs/hr [e]	0.00001	0.00018	0.00001	-	-	0.00055	-	-	0.00152	0.00010	0.00416	0.00000	-	-	0.00002	0.00003
lbs/hr to tons/yr [f]	0.000049	0.000789	0.000032	0.000000	0.000000	0.002428	0.000000	0.000000	0.006678	0.000443	0.018213	0.000017	0.000000	0.000000	0.000073	0.000152

Total VOCs (lbs/hr)	0.010
Total VOCs (lbs/month)	7
Total VOCs (tons/yr)	0.04
Total HAPs (lbs/hr)	0.007
Total HAPs (lbs/month)	5
Total HAPs (tons/yr)	0.03

Notes:

- a Molecular weight provided on laboratory report
- b µg/m3 is the initial unit of measurement in which the compound is reported, reported on laboratory report
- c Please refer to Equation 1 to the right
- d 1,000 µg is equal to 1 mg
- e Please refer to Equation 2 to the right
- g These compounds are considered HAPs (Hazardous Air Pollutants)

ppbv	parts per billion by volume
µg/m³	micrograms per cubic meter
mg/m³	milligrams per cubic meter
SCFM	Standard cubic feet per minute
lbs/hr	pounds per hour
tons/yr	tons per year
ft³	cubic feet
L	liter
nL	nanoliter

1 ppbv = 1 nL/10⁻⁹
1 m³ = 35.31 ft³
1 lb = 453,592 mg

Equations and Conversions

*Calculations made with assumption of standard Temperature and Pressure, using the constant of 24.45 L air
*Example calculation using Acetone

1. *Micrograms per cubic meter to pounds per hour*

$$\frac{\left(\frac{26.6\mu g}{m^3}\right)\left(\frac{1mg}{1\times10^3\mu g}\right)\left(\frac{370ft^3}{\min}\right)\left(\frac{60\min}{hr}\right)}{\left(\frac{35.31ft^3}{m^3}\right)\left(\frac{453,592mg}{lb}\right)} = 0.0000368lb/hr$$

2. *Hourly rate to tons per year*

$$\left(\frac{0.0000368lb}{hr}\right)\left(\frac{24hr}{day}\right)\left(\frac{365day}{yr}\right)\left(\frac{1ton}{2000lb}\right) = 0.000162ton/yr$$

Attachment D
Laboratory Report

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 18, 2016

Terefe Mazengia
GHD Services, Inc.
3075 Breckinridge Blvd.
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aqua-Tech Environmental

Dear Terefe Mazengia:

Order No: 1604880

Analytical Environmental Services, Inc. received 1 samples on 4/11/2016 1:07:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Air & Emissions for Volatile Organics effective 07/01/15-06/30/16.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

CKanhai

Chantelle Kanhai
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

APPENDIX

Compound	CAS #	Alternate Name	TO-14A	TO-15	SOP
Acetone	67-64-1				X
Allyl chloride	107-05-1	3-Chloropropene		X	
Benzene	71-43-2		X	X	
Benzyl chloride	100-44-7		X	X	
Bromodichloromethane	75-27-4	Dichlorobromomethane			X
Bromoform	75-25-2	Tribromomethane		X	
Bromomethane	74-83-9	Methyl bromide	X	X	
1,3-Butadiene	106-99-0			X	
Carbon disulfide	75-15-0			X	
Carbon tetrachloride	56-23-5		X	X	
Chlorobenzene	108-90-7		X	X	
Chloroethane	75-00-3	Ethyl chloride	X	X	
Chloroform	67-66-3		X	X	
Chloromethane	74-87-3	Methyl chloride	X	X	
Cyclohexane	110-82-7				X
Dibromochloromethane	124-48-1	Chlorodibromomethane			X
1,2-Dibromoethane	106-93-4	EDB/Ethylene dibromide	X	X	
1,2-Dichlorobenzene	95-50-1	*o*-Dichlorobenzene	X	X	
1,3-Dichlorobenzene	541-73-1	*m*-Dichlorobenzene	X	X	
1,4-Dichlorobenzene	106-46-7	p-Dichlorobenzene	X	X	
Dichlorodifluoromethane	75-71-8	Freon-12	X		
1,1-Dichloroethane	75-34-3		X	X	
1,2-Dichloroethane	107-06-2		X	X	
1,1-Dichloroethene	75-35-4	1,1-Dichloroethylene	X	X	
cis-1,2-Dichloroethene	156-59-2	*cis*-1,2-Dichloroethylene	X	X	
trans-1,2-Dichloroethene	156-60-5	*trans*-1,2-Dichloroethylene		X	
1,2-Dichloropropane	78-87-5		X	X	
cis-1,3-Dichloropropene	10061-01-5		X	X	
trans-1,3-Dichloropropene	10061-02-6		X	X	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	Freon-114	X		
1,4-Dioxane	123-91-1	1,4-Diethylene oxide		X	
Ethyl acetate	141-78-6	Acetic acid, ethyl ester			X
Ethylbenzene	100-41-4		X	X	
4-Ethyltoluene	622-96-8				X
n-Heptane	142-82-5	Heptane			X
Hexachlorobutadiene	87-68-3	Hexachloro-1,3-butadiene	X	X	

n-Hexane	110-54-3	Hexane		X	
Compound	**CAS #**	**Alternate Name**	**TO-14A**	**TO-15**	**SOP**
2-Hexanone	591-78-6	Methyl butyl ketone			X
Methylene chloride	75-09-2	Dichloromethane	X	X	
Methyl tert-butyl ether	1634-04-4	MTBE		X	
Methyl ethyl ketone	78-93-3	MEK/2-Butanone		X	
Methyl isobutyl ketone	108-10-1	4-Methyl-2-pentanone		X	
2-Propanol	67-63-0	Isopropanol/Isopropyl alcohol			X
Propene	115-07-1	Propylene			X
Styrene	100-42-5			X	
1,1,2,2-Tetrachloroethane	79-34-5		X	X	
Tetrachloroethene	127-18-4	Tetrachloroethylene	X	X	
Tetrahydrofuran	109-99-9				X
Toluene	108-88-3			X	
1,2,4-Trichlorobenzene	120-82-1			X	
1,1,1-Trichloroethane	74-55-6			X	
1,1,2-Trichloroethane	79-00-5			X	
Trichloroethene	79-01-6	Trichloroethylene		X	
Trichlorofluoromethane	75-69-4	Freon-11	X		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	Freon-113	X		
1,2,4-Trimethylbenzene	95-63-6		X	X	
1,3,5-Trimethylbenzene	108-67-8		X	X	
2,2,4-Trimethylpentane	540-84-1	Isooctane		X	
Vinyl acetate	108-05-04			X	
Vinyl bromide	593-60-2	Bromoethene		X	
Vinyl chloride	75-01-4	Chloroethene	X	X	
Xylenes, Total	1330-20-7		X	X	
m/p-Xylene	179601-23-1		X	X	
o-Xylene	95-47-6		X	X	

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

AES

VAPOR/AIR CHAIN OF CUSTODY

Work Order #: 160488

Page 1 of 1

Company: GHD

Address: 3075 Breckinridge Blvd Duluth, Ga

Bottle Order #:

Turnaround Time (Circle One): Standard | 3 Day Rush | 2 Day Rush | Other

Phone: 770 441 0027

Fax: 770 441 2050

Sampled by: B Longo

Signature: B Longo

#	Sample ID	Sample Start Date	Sample Start Time (24hr)	Sample Finish Date	Sample Finish Time (24 hr)	Sample Matrix*	Canister Serial #	Flow Controller ID	Canister Pressure In Field ("Hg) Start	Canister Pressure In Field ("Hg) Stop	ANALYSIS REQUESTED: TO-15							Remarks
1	A-041116-BLL-01	4/11/16	09:00	4/11/16	09:05	A	3899	01130	30"	0"	X							380 CFM flow rate
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

SPECIAL INSTRUCTIONS/COMMENTS:
If specialized list is required, list analytes here:

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1: B Longo	4/11/16 13:07	1: Poo Mr	4-11-16 13:07
2:		2:	
3:		3:	

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME:
PROJECT #:
SITE ADDRESS:
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
PO#:
STATE PROGRAM (if any): _____ E-mail? Y / N Fax? Y / N
QUOTE #:_____ DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC, AES WILL PROCEED AS STANDARD TAT.
Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

*SAMPLE MATRIX: IA = Indoor Air AA = Ambient Air SS = Subslab SV = Soil Vapor O = Other (specify)

AES, Inc., assumes no liability with respect to the collection and shipment of these samples.

Analytical Environmental Services, Inc

Date: 19-Apr-16

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1604880

Case Narrative

Volatiles Organic Compounds Analysis by Method TO-15:

Trichloroethene, cis-1,2-Dichloroethene and Tetrachloroethene values for the QC sample 1604880-001ADUP are "E" qualified indicating estimated values over linear calibration range.

Analytical Environmental Services, Inc **TO-15 Report** **Date:** 19-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	A-041116-BKL-01
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/11/2016 9:05:00 AM
Lab ID:	1604880-001	**Matrix:**	Air

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS	**TO-15**				**(TO-15)**				
1,1,1-Trichloroethane	400		0.42	5.5	ug/m3	222664	2	04/14/2016 17:26	MD
1,1,2,2-Tetrachloroethane	BRL		0.75	6.9	ug/m3	222664	2	04/14/2016 17:26	MD
1,1,2-Trichloroethane	BRL		0.46	5.5	ug/m3	222664	2	04/14/2016 17:26	MD
1,1-Dichloroethane	91		0.34	4.0	ug/m3	222664	2	04/14/2016 17:26	MD
1,1-Dichloroethene	7.3		0.24	4.0	ug/m3	222664	2	04/14/2016 17:26	MD
1,2,4-Trichlorobenzene	BRL		0.89	7.4	ug/m3	222664	2	04/14/2016 17:26	MD
1,2,4-Trimethylbenzene	BRL		0.41	4.9	ug/m3	222664	2	04/14/2016 17:26	MD
1,2-Dibromoethane	BRL		0.59	7.7	ug/m3	222664	2	04/14/2016 17:26	MD
1,2-Dichlorobenzene	3.3	J	0.36	6.0	ug/m3	222664	2	04/14/2016 17:26	MD
1,2-Dichloroethane	BRL		0.24	4.0	ug/m3	222664	2	04/14/2016 17:26	MD
1,2-Dichloropropane	BRL		0.36	4.6	ug/m3	222664	2	04/14/2016 17:26	MD
1,3,5-Trimethylbenzene	BRL		0.29	4.9	ug/m3	222664	2	04/14/2016 17:26	MD
1,3-Dichlorobenzene	BRL		0.36	6.0	ug/m3	222664	2	04/14/2016 17:26	MD
1,4-Dichlorobenzene	6.6		0.46	6.0	ug/m3	222664	2	04/14/2016 17:26	MD
2-Butanone	BRL		0.35	2.9	ug/m3	222664	2	04/14/2016 17:26	MD
2-Hexanone	BRL		0.24	4.1	ug/m3	222664	2	04/14/2016 17:26	MD
4-Methyl-2-pentanone	BRL		0.32	4.1	ug/m3	222664	2	04/14/2016 17:26	MD
Acetone	13		0.34	12	ug/m3	222664	2	04/14/2016 17:26	MD
Benzene	19		0.19	3.2	ug/m3	222664	2	04/14/2016 17:26	MD
Bromodichloromethane	BRL		0.40	6.7	ug/m3	222664	2	04/14/2016 17:26	MD
Bromoform	BRL		0.62	10	ug/m3	222664	2	04/14/2016 17:26	MD
Bromomethane	BRL		0.30	3.9	ug/m3	222664	2	04/14/2016 17:26	MD
Carbon disulfide	2.6	J	0.19	3.1	ug/m3	222664	2	04/14/2016 17:26	MD
Carbon tetrachloride	BRL		0.37	6.3	ug/m3	222664	2	04/14/2016 17:26	MD
Chlorobenzene	3.5	J	0.35	4.6	ug/m3	222664	2	04/14/2016 17:26	MD
Chloroethane	BRL		0.57	2.6	ug/m3	222664	2	04/14/2016 17:26	MD
Chloroform	4.4	J	0.29	4.9	ug/m3	222664	2	04/14/2016 17:26	MD
Chloromethane	BRL		0.16	2.1	ug/m3	222664	2	04/14/2016 17:26	MD
cis-1,2-Dichloroethene	2200		0.94	16	ug/m3	222664	2	04/15/2016 18:42	MD
cis-1,3-Dichloropropene	BRL		0.54	4.5	ug/m3	222664	2	04/14/2016 17:26	MD
Dibromochloromethane	BRL		0.51	8.5	ug/m3	222664	2	04/14/2016 17:26	MD
Dichlorodifluoromethane	BRL		0.29	4.9	ug/m3	222664	2	04/14/2016 17:26	MD
Ethylbenzene	8.0		0.36	4.3	ug/m3	222664	2	04/14/2016 17:26	MD
Freon-113	130		0.46	7.7	ug/m3	222664	2	04/14/2016 17:26	MD
Freon-114	BRL		1.1	7.0	ug/m3	222664	2	04/14/2016 17:26	MD
Hexachlorobutadiene	BRL		0.82	11	ug/m3	222664	2	04/14/2016 17:26	MD
m,p-Xylene	12		1.5	8.7	ug/m3	222664	2	04/14/2016 17:26	MD
Methyl tert-butyl ether	BRL		0.30	3.6	ug/m3	222664	2	04/14/2016 17:26	MD
Methylene chloride	5.2	J	0.21	6.9	ug/m3	222664	2	04/14/2016 17:26	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **TO-15 Report** **Date:** 19-Apr-16

Client:	GHD Services, Inc.	**Client Sample ID:**	A-041116-BKL-01
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/11/2016 9:05:00 AM
Lab ID:	1604880-001	**Matrix:**	Air

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS TO-15					**(TO-15)**				
o-Xylene	25		0.26	4.3	ug/m3	222664	2	04/14/2016 17:26	MD
Styrene	BRL		0.36	4.3	ug/m3	222664	2	04/14/2016 17:26	MD
Tetrachloroethene	1100		2.1	27	ug/m3	222664	2	04/15/2016 18:42	MD
Toluene	73		0.29	3.8	ug/m3	222664	2	04/14/2016 17:26	MD
trans-1,2-Dichloroethene	15		0.24	4.0	ug/m3	222664	2	04/14/2016 17:26	MD
trans-1,3-Dichloropropene	BRL		0.35	4.5	ug/m3	222664	2	04/14/2016 17:26	MD
Trichloroethene	3000		2.3	21	ug/m3	222664	2	04/15/2016 18:42	MD
Trichlorofluoromethane	2.8	J	0.67	5.6	ug/m3	222664	2	04/14/2016 17:26	MD
Vinyl acetate	BRL		0.27	3.5	ug/m3	222664	2	04/14/2016 17:26	MD
Vinyl chloride	BRL		0.59	2.6	ug/m3	222664	2	04/14/2016 17:26	MD
Surr: 4-Bromofluorobenzene	87.8		0	70-130	%REC	222664	2	04/14/2016 17:26	MD
Surr: 4-Bromofluorobenzene	93		0	70-130	%REC	222664	2	04/15/2016 18:42	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Date: *19-Apr-16*

CLIENT: GHD Services, Inc.
Lab Order: 1604880
Project: Aqua-Tech Environmental
Lab ID: 1604880-001

Client Sample ID: A-041116-BKL-01
Collection Date: 4/11/2016 9:05:00 AM
Matrix: AIR

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TOXIC ORGANIC COMPOUNDS IN AIR BY GCMS TO-15				(TO-15)			Analyst: **MD**	
1,1,1-Trichloroethane	74		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,1,2,2-Tetrachloroethane	ND		0.11	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,1,2-Trichloroethane	ND		0.084	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,1-Dichloroethane	22		0.084	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,1-Dichloroethene	1.8		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,2,4-Trichlorobenzene	ND		0.12	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,2,4-Trimethylbenzene	ND		0.084	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,2-Dibromoethane	ND		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,2-Dichlorobenzene	0.55	J	0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,2-Dichloroethane	ND		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,2-Dichloropropane	ND		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,3,5-Trimethylbenzene	ND		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,3-Dichlorobenzene	ND		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
1,4-Dichlorobenzene	1.1		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
2-Butanone	ND		0.12	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
2-Hexanone	ND		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
4-Methyl-2-pentanone	ND		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Acetone	5.7		0.14	5.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Benzene	6.0		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Bromodichloromethane	ND		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Bromoform	ND		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Bromomethane	ND		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Carbon disulfide	0.85	J	0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Carbon tetrachloride	ND		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Chlorobenzene	0.75	J	0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Chloroethane	ND		0.22	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Chloroform	0.90	J	0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Chloromethane	ND		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
cis-1,2-Dichloroethene	550		0.24	4.0	ppbv	222664	2	4/15/2016 6:42:00 PM
cis-1,3-Dichloropropene	ND		0.12	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Dibromochloromethane	ND		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Dichlorodifluoromethane	ND		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Ethylbenzene	1.8		0.084	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Freon-113	17		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Freon-114	ND		0.15	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Hexachlorobutadiene	ND		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
m,p-Xylene	2.7		0.36	2.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Methyl tert-butyl ether	ND		0.084	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Methylene chloride	1.5	J	0.060	2.0	ppbv	222664	2	4/14/2016 5:26:00 PM
o-Xylene	5.8		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Date: *19-Apr-16*

CLIENT: GHD Services, Inc.
Lab Order: 1604880
Project: Aqua-Tech Environmental
Lab ID: 1604880-001

Client Sample ID: A-041116-BKL-01
Collection Date: 4/11/2016 9:05:00 AM
Matrix: AIR

Analyses	Result	Qual	MDL	Rpt. Limit	Units	BatchID	DF	Date Analyzed
TOXIC ORGANIC COMPOUNDS IN AIR BY GCMS TO-15				(TO-15)			Analyst: **MD**	
Styrene	ND		0.084	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Tetrachloroethene	160		0.31	4.0	ppbv	222664	2	4/15/2016 6:42:00 PM
Toluene	19		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
trans-1,2-Dichloroethene	3.8		0.060	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
trans-1,3-Dichloropropene	ND		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Trichloroethene	560		0.43	4.0	ppbv	222664	2	4/15/2016 6:42:00 PM
Trichlorofluoromethane	0.50	J	0.12	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Vinyl acetate	ND		0.077	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Vinyl chloride	ND		0.23	1.0	ppbv	222664	2	4/14/2016 5:26:00 PM
Surr: 4-Bromofluorobenzene	93.0		0	70-130	%REC	222664	2	4/15/2016 6:42:00 PM
Surr: 4-Bromofluorobenzene	87.8		0	70-130	%REC	222664	2	4/14/2016 5:26:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	<	Less than Result value
>	Greater than Result value	B	Analyte detected in the associated Method Blank
E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified

Analytical Environmental Services, Inc.

Sample Receipt Checklist for Air Canisters

Client GHD Work Order Number 1604880

Checklist completed by [signature] 4/11/16
Signature Date

Carrier name: FedEx____ UPS____ Courier____ Client ✓ US Mail____ Other_____

Shipping container in good condition?	Yes ✓	No___	Not Present___
Custody seals intact on shipping container?	Yes___	No___	Not Present ✓
Chain of custody present?	Yes ✓	No___	
Chain of custody signed when relinquished and received?	Yes ✓	No___	
Chain of custody agrees with sample labels?	Yes ✓	No___	
Field data sheets present?	Yes___	No ✓	
Sample containers intact?	Yes ✓	No___	

If no, explain: _____

All samples received within holding time?	Yes ✓	No___	
Was TAT marked on the COC?	Yes ✓	No___	
Proceed with Standard TAT as per project history?	Yes___	No___	Not Applicable ✓
All canisters received per Bottle Order issued?	Yes___	No___	

See Case Narrative for resolution of the Non-Conformance.

Analytical Environmental Services, Inc

Date: 19-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1604880

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604880-001A	A-041116-BKL-01	4/11/2016 9:05:00AM	Air	Toxic Organic Compounds in Air by GCMS		4/14/2016 11:09:00 AM	04/14/2016
1604880-001A	A-041116-BKL-01	4/11/2016 9:05:00AM	Air	Toxic Organic Compounds in Air by GCMS		4/14/2016 11:09:00 AM	04/15/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604880

ANALYTICAL QC SUMMARY REPORT

BatchID: 222664

Sample ID: **MB-222664** Client ID: Units: **ppbv** Prep Date: **04/14/2016** Run No: **314676**
SampleType: **MBLK** TestCode: **Toxic Organic Compounds in Air by GCMS TO-15** BatchID: **222664** Analysis Date: **04/14/2016** Seq No: **6770900**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	0.20									
1,1,2,2-Tetrachloroethane	BRL	0.20									
1,1,2-Trichloroethane	BRL	0.20									
1,1-Dichloroethane	BRL	0.20									
1,1-Dichloroethene	BRL	0.20									
1,2,4-Trichlorobenzene	BRL	0.20									
1,2,4-Trimethylbenzene	BRL	0.20									
1,2-Dibromoethane	BRL	0.20									
1,2-Dichlorobenzene	BRL	0.20									
1,2-Dichloroethane	BRL	0.20									
1,2-Dichloropropane	BRL	0.20									
1,3,5-Trimethylbenzene	BRL	0.20									
1,3-Dichlorobenzene	BRL	0.20									
1,4-Dichlorobenzene	BRL	0.20									
2-Butanone	BRL	0.20									
2-Hexanone	BRL	0.20									
4-Methyl-2-pentanone	BRL	0.20									
Acetone	BRL	1.0									
Benzene	BRL	0.20									
Bromodichloromethane	BRL	0.20									
Bromoform	BRL	0.20									
Bromomethane	BRL	0.20									
Carbon disulfide	BRL	0.20									
Carbon tetrachloride	BRL	0.20									
Chlorobenzene	BRL	0.20									
Chloroethane	BRL	0.20									
Chloroform	BRL	0.20									

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Date: 18-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604880

ANALYTICAL QC SUMMARY REPORT

BatchID: 222664

Sample ID: **MB-222664** Client ID:
SampleType: **MBLK** TestCode: **Toxic Organic Compounds in Air by GCMS TO-15**
Units: **ppbv** BatchID: **222664**
Prep Date: **04/14/2016** Analysis Date: **04/14/2016**
Run No: **314676** Seq No: **6770900**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	0.20									
cis-1,2-Dichloroethene	BRL	0.20									
cis-1,3-Dichloropropene	BRL	0.20									
Dibromochloromethane	BRL	0.20									
Dichlorodifluoromethane	BRL	0.20									
Ethylbenzene	BRL	0.20									
Freon-113	BRL	0.20									
Freon-114	BRL	0.20									
Hexachlorobutadiene	BRL	0.20									
m,p-Xylene	BRL	0.40									
Methyl tert-butyl ether	BRL	0.20									
Methylene chloride	BRL	0.20									
o-Xylene	BRL	0.20									
Styrene	BRL	0.20									
Tetrachloroethene	BRL	0.20									
Toluene	BRL	0.20									
trans-1,2-Dichloroethene	BRL	0.20									
trans-1,3-Dichloropropene	BRL	0.20									
Trichloroethene	BRL	0.20									
Trichlorofluoromethane	BRL	0.20									
Vinyl acetate	BRL	0.20									
Vinyl chloride	BRL	0.20									
Surr: 4-Bromofluorobenzene	4.020	0	4.000		100	70	130				

Sample ID: **LCS-222664** Client ID:
SampleType: **LCS** TestCode: **Toxic Organic Compounds in Air by GCMS TO-15**
Units: **ppbv** BatchID: **222664**
Prep Date: **04/14/2016** Analysis Date: **04/14/2016**
Run No: **314676** Seq No: **6770899**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604880

ANALYTICAL QC SUMMARY REPORT

BatchID: 222664

Sample ID: **LCS-222664** Client ID: Units: **ppbv** Prep Date: **04/14/2016** Run No: **314676**
SampleType: **LCS** TestCode: **Toxic Organic Compounds in Air by GCMS TO-15** BatchID: **222664** Analysis Date: **04/14/2016** Seq No: **6770899**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	3.270	0.20	4.000		81.8	70	130				
1,1,2,2-Tetrachloroethane	3.700	0.20	4.000		92.5	70	130				
1,1,2-Trichloroethane	3.420	0.20	4.000		85.5	70	130				
1,1-Dichloroethane	3.310	0.20	4.000		82.8	70	130				
1,1-Dichloroethene	3.340	0.20	4.000		83.5	70	130				
1,2,4-Trichlorobenzene	2.980	0.20	4.000		74.5	70	130				
1,2,4-Trimethylbenzene	3.950	0.20	4.000		98.8	70	130				
1,2-Dibromoethane	3.610	0.20	4.000		90.2	70	130				
1,2-Dichlorobenzene	3.710	0.20	4.000		92.8	70	130				
1,2-Dichloroethane	3.390	0.20	4.000		84.8	70	130				
1,2-Dichloropropane	3.320	0.20	4.000		83.0	70	130				
1,3,5-Trimethylbenzene	3.970	0.20	4.000		99.2	70	130				
1,3-Dichlorobenzene	3.790	0.20	4.000		94.8	70	130				
1,4-Dichlorobenzene	3.770	0.20	4.000		94.2	70	130				
2-Butanone	3.090	0.20	4.000		77.2	70	130				
2-Hexanone	3.740	0.20	4.000		93.5	70	130				
4-Methyl-2-pentanone	3.490	0.20	4.000		87.2	70	130				
Acetone	3.280	1.0	4.000	0.1500	78.2	70	130				
Benzene	3.300	0.20	4.000		82.5	70	130				
Bromodichloromethane	3.380	0.20	4.000		84.5	70	130				
Bromoform	3.610	0.20	4.000		90.2	70	130				
Bromomethane	3.360	0.20	4.000		84.0	70	130				
Carbon disulfide	3.300	0.20	4.000		82.5	70	130				
Carbon tetrachloride	3.340	0.20	4.000		83.5	70	130				
Chlorobenzene	3.550	0.20	4.000		88.8	70	130				
Chloroethane	3.320	0.20	4.000		83.0	70	130				
Chloroform	3.280	0.20	4.000		82.0	70	130				

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Analytical Environmental Services, Inc

Date: 18-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604880

ANALYTICAL QC SUMMARY REPORT

BatchID: 222664

Sample ID: **LCS-222664** Client ID:
SampleType: **LCS** TestCode: **Toxic Organic Compounds in Air by GCMS TO-15**
Units: **ppbv** BatchID: **222664**
Prep Date: **04/14/2016** Analysis Date: **04/14/2016**
Run No: **314676** Seq No: **6770899**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	3.280	0.20	4.000		82.0	70	130				
cis-1,2-Dichloroethene	3.240	0.20	4.000		81.0	70	130				
cis-1,3-Dichloropropene	3.390	0.20	4.000		84.8	70	130				
Dibromochloromethane	3.560	0.20	4.000		89.0	70	130				
Dichlorodifluoromethane	3.340	0.20	4.000		83.5	70	130				
Ethylbenzene	3.830	0.20	4.000		95.8	70	130				
Freon-113	3.300	0.20	4.000		82.5	70	130				
Freon-114	3.320	0.20	4.000		83.0	70	130				
Hexachlorobutadiene	3.060	0.20	4.000		76.5	70	130				
m,p-Xylene	7.780	0.40	8.000		97.2	70	130				
Methyl tert-butyl ether	3.120	0.20	4.000		78.0	70	130				
Methylene chloride	3.510	0.20	4.000		87.8	70	130				
o-Xylene	3.970	0.20	4.000		99.2	70	130				
Styrene	4.030	0.20	4.000		101	70	130				
Tetrachloroethene	3.590	0.20	4.000		89.8	70	130				
Toluene	3.540	0.20	4.000	0.09000	86.2	70	130				
trans-1,2-Dichloroethene	3.140	0.20	4.000		78.5	70	130				
trans-1,3-Dichloropropene	3.480	0.20	4.000		87.0	70	130				
Trichloroethene	3.330	0.20	4.000		83.2	70	130				
Trichlorofluoromethane	3.370	0.20	4.000		84.2	70	130				
Vinyl acetate	3.250	0.20	4.000		81.2	70	130				
Vinyl chloride	3.350	0.20	4.000		83.8	70	130				
Surr: 4-Bromofluorobenzene	4.080	0	4.000		102	70	130				

Sample ID: **1604880-001ADUP** Client ID: **A-041116-BKL-01**
SampleType: **DUP** TestCode: **Toxic Organic Compounds in Air by GCMS TO-15**
Units: **ppbv** BatchID: **222664**
Prep Date: **04/14/2016** Analysis Date: **04/14/2016**
Run No: **314676** Seq No: **6771697**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604880

ANALYTICAL QC SUMMARY REPORT

BatchID: 222664

Sample ID: **1604880-001ADUP** Client ID: **A-041116-BKL-01** Units: **ppbv** Prep Date: **04/14/2016** Run No: **314676**
SampleType: **DUP** TestCode: **Toxic Organic Compounds in Air by GCMS TO-15** BatchID: **222664** Analysis Date: **04/14/2016** Seq No: **6771697**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	73.30	1.0						73.55	0.340	25	
1,1,2,2-Tetrachloroethane	BRL	1.0						0	0	25	
1,1,2-Trichloroethane	BRL	1.0						0	0	25	
1,1-Dichloroethane	22.90	1.0						22.50	1.76	25	
1,1-Dichloroethene	1.750	1.0						1.850	5.56	25	
1,2,4-Trichlorobenzene	BRL	1.0						0	0	25	
1,2,4-Trimethylbenzene	BRL	1.0						0	0	25	
1,2-Dibromoethane	BRL	1.0						0	0	25	
1,2-Dichlorobenzene	BRL	1.0						0.5500	0	25	
1,2-Dichloroethane	BRL	1.0						0	0	25	
1,2-Dichloropropane	BRL	1.0						0	0	25	
1,3,5-Trimethylbenzene	BRL	1.0						0	0	25	
1,3-Dichlorobenzene	BRL	1.0						0	0	25	
1,4-Dichlorobenzene	1.100	1.0						1.100	0	25	
2-Butanone	BRL	1.0						0	0	25	
2-Hexanone	BRL	1.0						0	0	25	
4-Methyl-2-pentanone	BRL	1.0						0	0	25	
Acetone	6.050	5.0						5.650	6.84	25	
Benzene	5.900	1.0						6.000	1.68	25	
Bromodichloromethane	BRL	1.0						0	0	25	
Bromoform	BRL	1.0						0	0	25	
Bromomethane	BRL	1.0						0	0	25	
Carbon disulfide	BRL	1.0						0.8500	0	25	
Carbon tetrachloride	BRL	1.0						0	0	25	
Chlorobenzene	BRL	1.0						0.7500	0	25	
Chloroethane	BRL	1.0						0	0	25	
Chloroform	BRL	1.0						0.9000	0	25	

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 18-Apr-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1604880

ANALYTICAL QC SUMMARY REPORT

BatchID: 222664

Sample ID: **1604880-001ADUP** Client ID: **A-041116-BKL-01** Units: **ppbv** Prep Date: **04/14/2016** Run No: **314676**
SampleType: **DUP** TestCode: **Toxic Organic Compounds in Air by GCMS TO-15** BatchID: **222664** Analysis Date: **04/14/2016** Seq No: **6771697**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	1.0						0	0	25	
cis-1,2-Dichloroethene	666.6	1.0						668.0	0.217	25	E
cis-1,3-Dichloropropene	BRL	1.0						0	0	25	
Dibromochloromethane	BRL	1.0						0	0	25	
Dichlorodifluoromethane	BRL	1.0						0	0	25	
Ethylbenzene	2.000	1.0						1.850	7.79	25	
Freon-113	16.65	1.0						17.15	2.96	25	
Freon-114	BRL	1.0						0	0	25	
Hexachlorobutadiene	BRL	1.0						0	0	25	
m,p-Xylene	3.200	2.0						2.700	16.9	25	
Methyl tert-butyl ether	BRL	1.0						0	0	25	
Methylene chloride	BRL	2.0						1.500	0	25	
o-Xylene	6.700	1.0						5.800	14.4	25	
Styrene	BRL	1.0						0	0	25	
Tetrachloroethene	203.4	1.0						206.6	1.59	25	E
Toluene	19.75	1.0						19.40	1.79	25	
trans-1,2-Dichloroethene	3.800	1.0						3.750	1.32	25	
trans-1,3-Dichloropropene	BRL	1.0						0	0	25	
Trichloroethene	775.3	1.0						781.2	0.758	25	E
Trichlorofluoromethane	BRL	1.0						0.5000	0	25	
Vinyl acetate	BRL	1.0						0	0	25	
Vinyl chloride	BRL	1.0						0	0	25	
Surr: 4-Bromofluorobenzene	17.35	0	20.00		86.8	70	130	17.55	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

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#2

January 9, 2017

Reference No. 013926

Ms. Yvonne O. Jones
Remedial Project Manager
US EPA, REGION 4
Waste Management Division
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960

Dear Ms. Jones:

Re: Semi-Annual Groundwater Monitoring and SVE Emission Monitoring
Aqua-Tech Environmental, Inc. Superfund Site
Greer, Spartanburg County, South Carolina

GHD Services Inc. (GHD) conducted the semi-annual groundwater monitoring at the Aqua-Tech Environmental, Inc. Superfund Site (Site) in accordance with the approved Remedial Design Work Plan dated September 2006. Groundwater monitoring was performed in the two separate areas of the Site as follows:

- Administration Area (northeast portion of the Site); and
- Downgradient Area (western portion of the Site).

This letter summarizes the sampling procedures and results of the post-injection performance monitoring at the Administrative Area and the Monitored Natural Attenuation (MNA) groundwater monitoring at the Downgradient Area, and the air sampling from the soil vapor extraction (SVE) system, conducted in October 2016.

1. Introduction

1.1 Administration Area

The October 2016 event was completed as part of the semi-annual sampling program following the March 2011 full-scale ISCO injection at the former Administrative Area. The injection locations and subsequent monitoring wells are presented on Figure 1. The October 2016 sampling event was the twelfth post-injection groundwater monitoring event which has been conducted since March 2011.

1.2 Downgradient Area

Wells in and around the Downgradient Area (area south of MW-12, MW-11A, MW-41, MW-42, etc.) including select monitoring wells from all three water bearing units, are included in the MNA assessment as shown on Figure 2. Based on the recommendations presented in the Final Construction Report, Part II, groundwater sampling of select monitoring wells for MNA evaluation is performed to monitor the natural attenuation rate in the groundwater at the Downgradient Area.

1.3 SVE Emission Testing

Routine semi-annual monitoring of the emissions from the SVE system is conducted, pursuant to the operation and maintenance (O&M) plan for the continuous operation of the SVE system.

2. Groundwater Monitoring

The depth to groundwater was measured in all Site monitoring wells during this sampling event (October 2016) and the measurements are summarized in Table 1. The groundwater elevation maps generated based on the October 17, 2016 groundwater elevations are presented on Figures 3A, 3B and 3C for the saprolite, shallow bedrock and bedrock water bearing units, respectively. Groundwater flow direction in all these units was consistent with previous monitoring events.

2.1 Groundwater Sampling

Groundwater sampling activities were conducted in general accordance with the recommendations provided in United States Environmental Protection Agency (USEPA) Region IV Field Branches Quality Systems and Technical Procedures (FBQSTP), Science and Ecosystem Support Division (SESD) Procedure Number SESDPROC-301-R3 (Groundwater Sampling). Each sampling location was purged under low-flow conditions using a bladder pump fitted with dedicated ¼-inch outer diameter (¼"-OD) polyethylene tubing. Field parameters (i.e., temperature, conductivity, turbidity, dissolved oxygen [DO], pH, and oxidation-reduction potential [ORP]) were measured in the flow-through cell of a calibrated, multi-parameter water quality meter[1]. Flow rates were maintained within a range of 50 milliliters per minute (mL/min) to 300 mL/min and depths to groundwater were measured to monitor drawdown. Stabilization of the field parameters indicated entry of representative formation water into the screened interval. Upon stabilization, sampling was performed with the same equipment used for purging. Select monitoring wells (MW-7A, MW-41, MW-42 and TW-2) were purged using the multi-volume purging method due to the significant drawdown that occurred during the low-flow method. Records of the monitoring well low-flow and multi-volume purging for the October 2015 monitoring event are included in Attachment A. Samples were collected directly into laboratory supplied pre-cleaned sample jars. All groundwater samples were preserved in ice-filled coolers and picked up by Analytical Environmental Services, Inc. (AES) courier service; the samples were relinquished to the courier under standard chain of custody (COCs) protocols.

Blind duplicate samples were collected from monitoring wells MW-40 (GW-013926-101816-SAG-005) and MW-12 (GW-013926-101816-SAG-008) and one matrix spike/matrix spike duplicate (MS/MSD) sample was collected from MW-4 (GW-013926-101916-SAG-012) and submitted to AES for quality assurance/quality control (QA/QC) purposes.

1 Horiba U-53 Multi-parameters Water Quality measuring instrument.

3. Performance Groundwater Monitoring - Administrative Area

Pre- and post-injection groundwater sampling was performed at the Administrative Area (full-scale ISCO) in the injection zone. The pre- and post-injection groundwater performance monitoring sampling was conducted at monitoring well locations MW-27, MW-28, MW-32, MW-39 and MW-40. The groundwater performance monitoring locations are illustrated on Figure 1.

Each groundwater sample was analyzed for the following parameters:

- Field parameters (i.e., pH, conductivity, oxidation-reduction potential [ORP], dissolved oxygen [DO] and temperature);
- Volatile organic compounds (VOCs) and target analyte list (TAL) metals; and
- Geochemical parameters.

3.1 Analytical Results

During this event, PCE concentrations were reported more than 50 percent (%) lower than concentrations prior to the full-scale injection. PCE concentrations decreased between 53 to 68 percent (%) in monitoring wells MW-27 (570 micrograms per liter [µg/L]), MW-28 (810 µg/L) and MW-32 (940 µg/L) compared to the baseline pre-injection concentrations. Concentrations have been generally stable in the injection area wells with minor variations. Concentrations of PCE in the downgradient well MW-39 continue to trend lower; concentration of PCE in well MW-39 shows up to 86% reduction as compared to the pre-injection concentrations.

Concentrations of sodium and sulfate show a decreasing trend at all monitoring locations. During this sampling event, concentrations of sodium ranged from 52.8 mg/L (MW-28) to 5.35 mg/L (MW-40) and sulfate concentrations ranged from 18 mg/L (MW-28) to 7.8 mg/L (MW-40) in the post-injection groundwater samples.

Groundwater analytical results for the pre- and select post-injection events are summarized in Table 2. The sample keys, data quality assessment and validation memorandums, and complete analytical data reports for the October 2016 post-injection groundwater sampling event are included in Attachment B. Analytical results of the entire pre- and post- injection events are summarized in the tables provided in Attachment C.

3.2 Summary of Results

Reductions in PCE concentrations ranged from 53 % in monitoring MW-32 to 86 % in monitoring locations MW-39 and MW-40. PCE concentrations within the injection area encompassing MW-27, MW-28, and MW-32 have remained stable. Comparisons of the concentrations of select parameters prior to and select post ISCO injection are presented in Table 3. PCE concentrations in downgradient monitoring wells MW-39 and MW-40 were lower or stable suggesting the original source area is not contributing to degradation of the downgradient groundwater.

The downgradient concentrations of sodium, sulfate and ORP values (see Table 3) also demonstrated the continued influence of the injection based on the presence of the oxidant and suggesting the continuation of the oxidation reaction. DO concentrations ranged from 2.49 mg/L at MW-40 to 5.45 mg/L at MW-27; ORP values ranged from 298 mV at MW-32 to 371 mV at MW-40 in groundwater samples.

The pre- and post-injection groundwater VOC detections in the former Administrative Area are presented on Figure 4.

The groundwater monitoring data indicate that the chemical oxidation rate of VOCs is decreasing. Based on the overall results of the ISCO injection, chemical oxidation of VOCs in groundwater using activated sodium persulfate was successful and substantially reduced residual VOC mass from the groundwater in the Administration Area. Although still significantly below pre-injection concentrations, variations in PCE concentrations were observed during this post-injection monitoring event at MW-27 (570 µg/L), MW-28 (810 µg/L), MW-32 (940 µg/L), MW-39 (45 µg/L) and MW-40 (15 µg/L).

4. Monitored Natural Attenuation Monitoring - Downgradient Area

MNA was proposed as part of the long-term Site-wide groundwater remedy, particularly for the Downgradient Area. The monitoring wells sampled for the MNA assessment are shown on Figure 2. The following monitoring wells from each water-bearing unit were included in the semi-annual groundwater monitoring program:

- Saprolite unit - MW-3, MW-4, MW-11, MW-12, MW-14, MW-35, MW-42, and TW-2;
- Shallow bedrock unit - MW-7A, MW-10A, MW-13, and MW-41; and
- Bedrock unit - MW-4A and MW-11A.

4.1 Analytical Results

The following parameters were analyzed during this event as part of the MNA program:

- TCL VOCs;
- Dissolved gases (ethane, ethane and methane);
- General chemistry parameters; and
- Field parameter (pH, DO, ORP, Temp and Conductivity).

VOC detections in groundwater for the MNA assessment are summarized in Tables 4A and 4B for the Saprolite and Shallow Bedrock and Bedrock units, respectively and are illustrated on Figures 5A through 5D.

Within the saprolite unit, concentrations of parent compounds and their degradation products have shown a decrease in multiple monitoring wells since the February 2011 sampling event. Concentrations of PCE have decreased approximately 40% in MW-11 and MW-42, and concentrations of TCE decreased at MW-11, MW-12, MW-35, and MW-42 since the Baseline Sampling; the highest TCE reduction (approximately 84%) was seen at MW-11 and MW-12. Concentrations of cis-1,2-DCE decreased at MW-11, MW-12, MW-35 and MW-42 since February 2011, with the highest drop (more than 50%) seen at MW-42.

General observation shows that concentrations tend to decrease along the groundwater flow path between MW-12 (north) and MW-4 (south) with the exception of MW-42. Concentrations reported in MW-42 remain elevated versus up and down gradient monitoring wells. These concentrations are consistent with historical data, and may be due to a localized historic release; however any impacts remain very limited.

In the Shallow Bedrock, concentrations of select COCs (PCE, TCE and cis-1,2-DCE) reported at MW-13 and MW-41 were generally similar to prior results showing a downward trend. Concentrations decrease along the groundwater flow path in the shallow bedrock from MW-13 to MW-10A. The decrease in the COCs at MW-13 without a corresponding increase in the downgradient well MW-10A is evidence that natural attenuation via biodegradation is on-going at the Site.

In the bedrock, concentrations of COCs have generally stayed the same in MW-4A and a reduction of cis-1,2-DCE, PCE and TCE was observed at MW-11A. Concentrations furthest downgradient at MW-4A were generally below detection limits with few exceptions, indicating that concentrations are decreasing along the groundwater flow path.

The overall redox (ORP) data at the wells sampled indicate that there is an oxidizing condition in all three aquifer units. The presence of methane in select monitoring wells (MW-3, MW-7A, MW-10A, MW-11, and TW-2) indicates that natural conditions may be reducing in the area. The highest methane concentration was reported at MW-10A (750 µg/L).

Concentrations of total organic carbon (TOC) in the source area groundwater, which serves as the substrate (food source) for the microbes, is at or below 5 mg/L and TOC in the background wells in the saprolite are slightly conducive (above 1 mg/L). These values are generally lower than the 20 mg/L that the EPA recommends for robust biodegradation, but still contribute to the biodegradation process.

The results of this natural attenuation evaluation indicate that biodegradation of COCs is on-going and that natural attenuation processes at the Site are limiting the downgradient migration of COCs. However, the ability of the local microbial population to degrade the COCs may be limited by the available organic carbon in the groundwater at the Site. Further monitoring will continue to determine the rate of on-going biodegradation of COCs at the Site.

The sample keys, data quality assessment and validation memorandums, and complete analytical data reports for the October 2016 MNA assessment groundwater sampling event are included in Attachment B.

5. SVE System Emission Testing

The most recent emission test was conducted on October 18, 2016. During this event, the air sample was collected and analyzed from the combined flow from all 40 SVE wells. The sample was collected from the sample port located prior to the granular-activated carbon (GAC) units at a flow rate of approximately 370 standard cubic feet per minute (scfm). A figure illustrating the location of the wells and the associated well headers is provided as Figure 6.

The air sample was collected in a six liter Summa canister which was provided by Pace Analytical Services (PACE). The sample was analyzed for volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The average hourly and monthly emission rates for VOCs and HAPs were calculated using the flow rate and the analytical result for each compound. The emission rates were calculated for each detected compound and the averages were summed over the entire list of detected VOCs and HAPs to obtain an average total emission rate based on each sample. Attachment D shows the calculations for the October 2016 event. The laboratory report is provided as Attachment E.

The estimated average emission rates of VOCs and HAPs from all headers for this and the last three semi-annual sampling events are summarized below:

	March 18, 2015 Pre-Carbon Treatment	October 27, 2015 Pre-Carbon Treatment	April 11, 2016 Pre-Carbon Treatment	October 18, 2016 Pre-Carbon Treatment
Lbs VOCs/hr	0.111	0.024	0.010 [2]	0.032
Lbs HAPs/hr	0.025	0.005	0.007	0.008

In general, emission rates of VOCs and HAPs have stabilized and remain similar to the previous events. The emission rates since October 2010 are presented on the graph provided as Figure 7 to show the trends with time.

GHD anticipates further reductions maybe achievable and will continue operation of the SVE system utilizing flow from all 40 SVE wells. During the next sampling event, the air sample will be collected after the system runs for at least 24 hours after purging the condensate from the traps, if any, and system start-up. On/off cycling of the SVE system may be considered to improve recovery if the current recovery rate remains stable. Pursuant to the O&M plan, the next sampling event is tentatively scheduled to coincide with the semi-annual groundwater monitoring event.

The next round of ISCO and MNA groundwater monitoring and SVE emission testing is scheduled for October 2016.

Please contact the undersigned at (678) 280-2140 if you have any questions or comments regarding the above.

Sincerely,

GHD

Terefe Mazengia, PG.

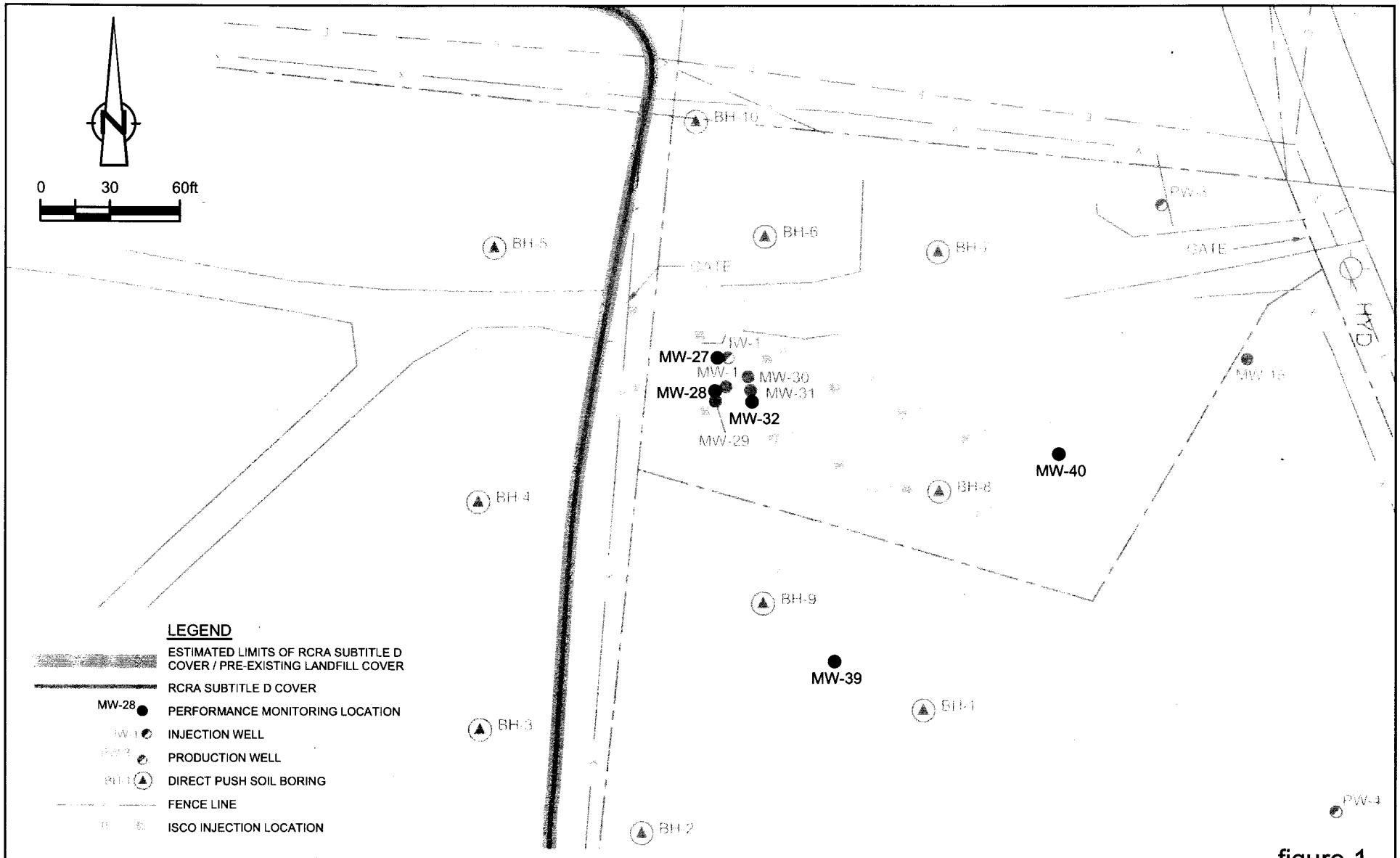
R. T. (Bob) Pyle

TM/tb/172
Encl.

cc: Joel Padgett, SCDHEC
Steve Anastos, Exxon Mobil
Amy Magee, King & Spalding

[2] THC as Gas was inadvertently left out of the analysis list for TO-15 in the April 2016 sample

Figures



NOTE:
1. THE LOCATION OF INJECTION POINTS IS APPROXIMATE.
2. GROUNDWATER MONITORING SAMPLES COLLECTED FROM MONITORING WELL LOCATIONS: MW-27, MW-28, MW-32, MW-39, AND MW-40.

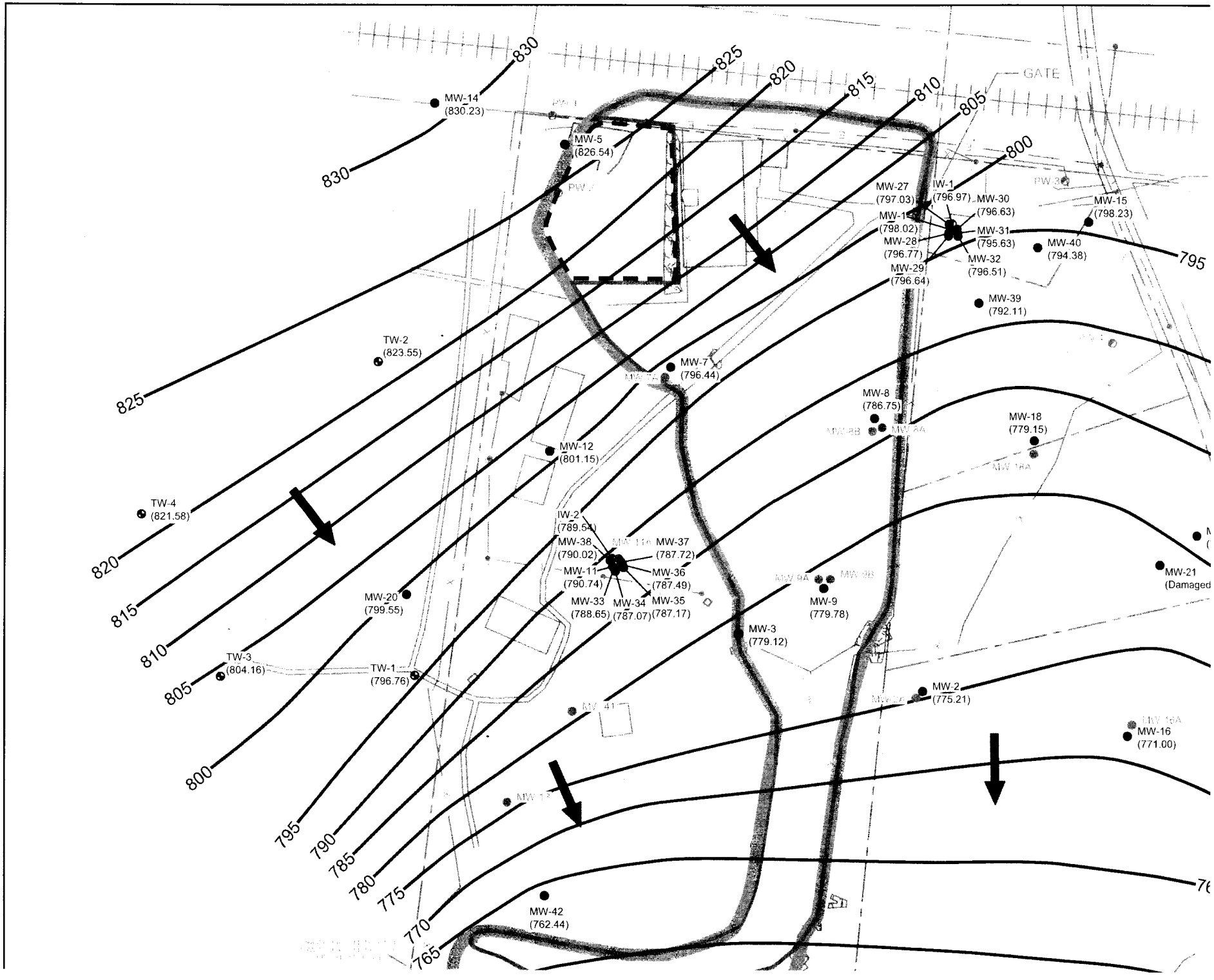
SOURCE: TRIAD SURVEYORS, INC. BOUNDARY SURVEY DATED 10/31/2011.

figure 1

POST INJECTION AND MONITORING LOCATIONS
AQUA-TECH ENVIRONMENTAL, INC.
Greer, South Carolina

13926-25(JONE172)GN-WA001 NOV 21, 2016

GATE
MW-14
PW-1
PW-2
MW-7A
MW-11A
MW-41
MW-13
MW-42
MW-2A
MW-16A
MW-9A
MW-9B
MW-28
MW-32
MW-40
MW-39
MW-6
MW-3
TW-4
TW-1


830
825
820
815
810
805
800
795
790
785
780
775
770
765
GATE
MW-14
(830.23)
MW-5
(826.54)
PW-1
PW-2
PW-3
MW-27
(797.03)
IW-1
(796.97)
MW-30
(796.63)
MW-15
(798.23)
MW-1
(798.02)
MW-31
(795.63)
MW-28
(796.77)
MW-32
(796.51)
MW-40
(794.38)
MW-29
(796.64)
MW-39
(792.11)
TW-2
(823.55)
MW-7
(796.44)
MW-8
(786.75)
MW-18
(779.15)
MW-12
(801.15)
TW-4
(821.58)
IW-2
(789.54)
MW-38
(790.02)
MW-37
(787.72)
MW-11
(790.74)
MW-36
(787.49)
MW-33
(788.65)
MW-34
(787.07)
MW-35
(787.17)
MW-20
(799.55)
MW-9
(779.78)
MW-21
(Damaged
MW-3
(779.12)
TW-3
(804.16)
TW-1
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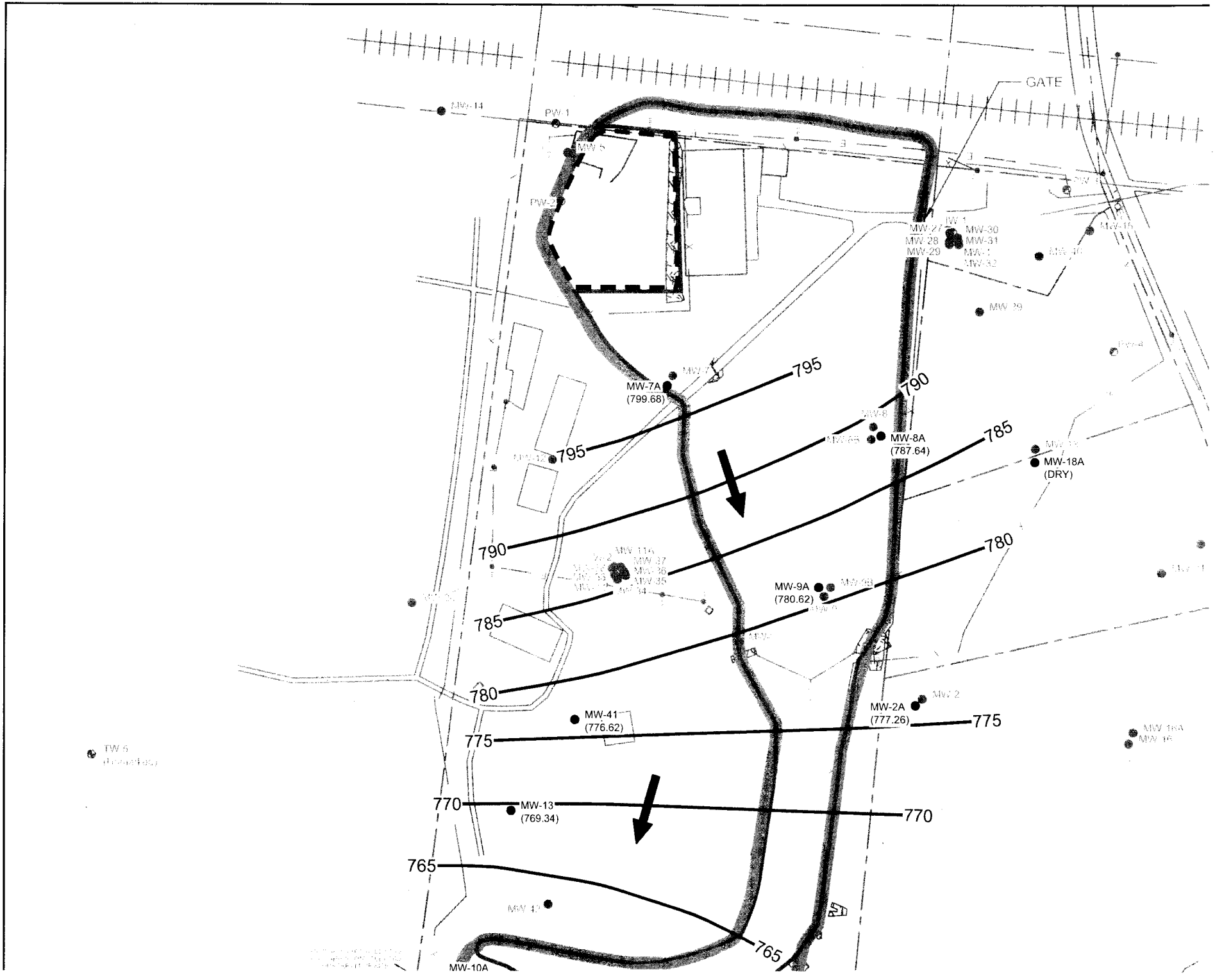
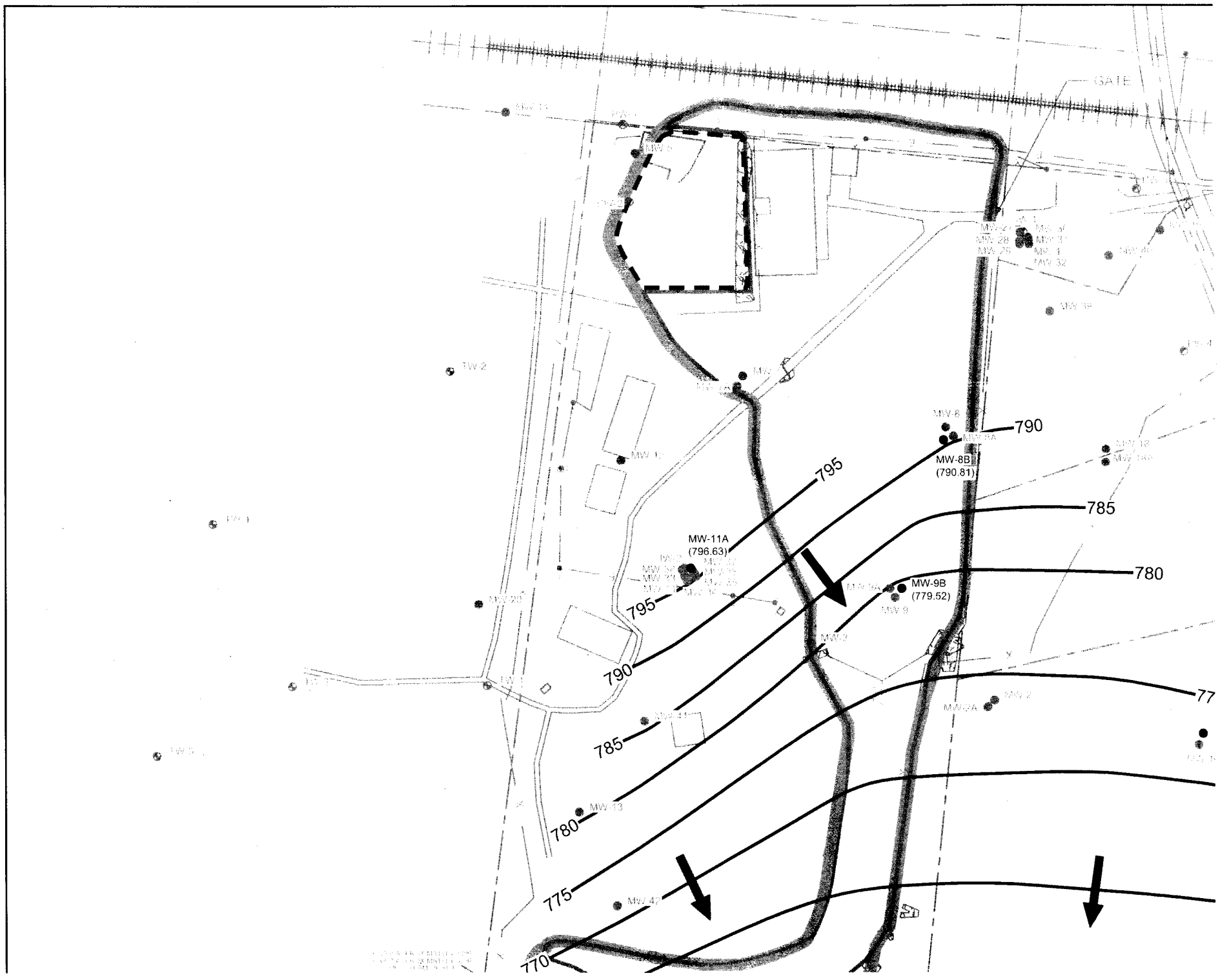
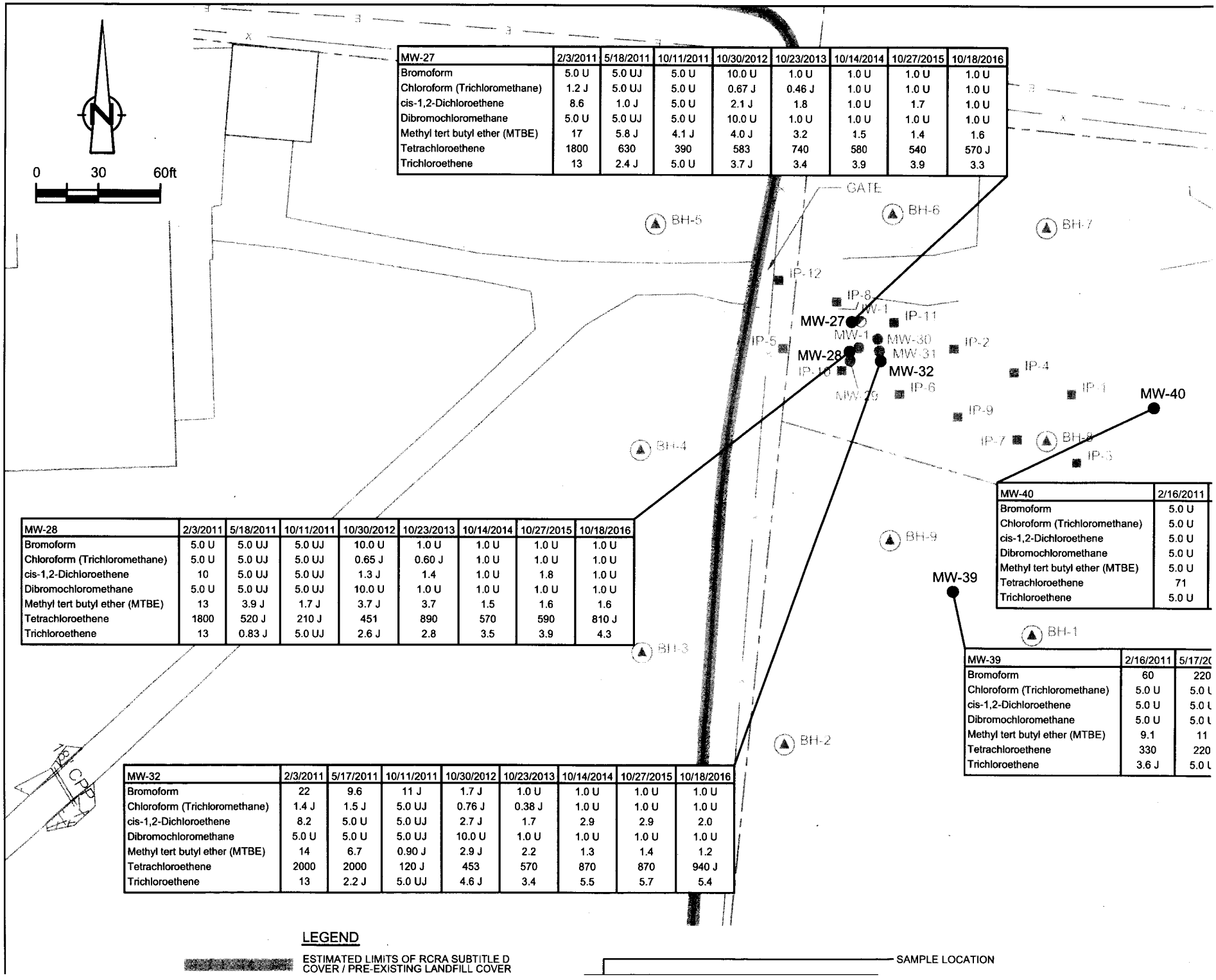
MW-2
(775.21)
MW-16
(771.00)
MW-42
(762.44)


GATE
MW-14
PW-1
MW-5
PW-2
MW-27
MW-28
MW-29
MW-30
MW-31
MW-32
MW-29
MW-7A
(799.68)
795
790
MW-8A
(787.64)
785
MW-18A
(DRY)
795
790
785
780
MW-9A
(780.62)
780
MW-2A
(777.26)
775
MW-41
(776.62)
775
770
MW-13
(769.34)
770
765
765
MW-10A


GATE
MW-8B
(790.81)
MW-11A
(796.63)
MW-9B
(779.52)
790
795
785
780
775
770
77



MW-27	2/3/2011	5/18/2011	10/11/2011	10/30/2012	10/23/2013	10/14/2014	10/27/2015	10/18/2016
Bromoform	5.0 U	5.0 UJ	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	1.2 J	5.0 UJ	5.0 U	0.67 J	0.46 J	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	8.6	1.0 J	5.0 U	2.1 J	1.8	1.0 U	1.7	1.0 U
Dibromochloromethane	5.0 U	5.0 UJ	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	17	5.8 J	4.1 J	4.0 J	3.2	1.5	1.4	1.6
Tetrachloroethene	1800	630	390	583	740	580	540	570 J
Trichloroethene	13	2.4 J	5.0 U	3.7 J	3.4	3.9	3.9	3.3

MW-40	2/16/2011
Bromoform	5.0 U
Chloroform (Trichloromethane)	5.0 U
cis-1,2-Dichloroethene	5.0 U
Dibromochloromethane	5.0 U
Methyl tert butyl ether (MTBE)	5.0 U
Tetrachloroethene	71
Trichloroethene	5.0 U

MW-28	2/3/2011	5/18/2011	10/11/2011	10/30/2012	10/23/2013	10/14/2014	10/27/2015	10/18/2016
Bromoform	5.0 U	5.0 UJ	5.0 UJ	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	5.0 U	5.0 UJ	5.0 UJ	0.65 J	0.60 J	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	10	5.0 UJ	5.0 UJ	1.3 J	1.4	1.0 U	1.8	1.0 U
Dibromochloromethane	5.0 U	5.0 UJ	5.0 UJ	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	13	3.9 J	1.7 J	3.7 J	3.7	1.5	1.6	1.6
Tetrachloroethene	1800	520 J	210 J	451	890	570	590	810 J
Trichloroethene	13	0.83 J	5.0 UJ	2.6 J	2.8	3.5	3.9	4.3

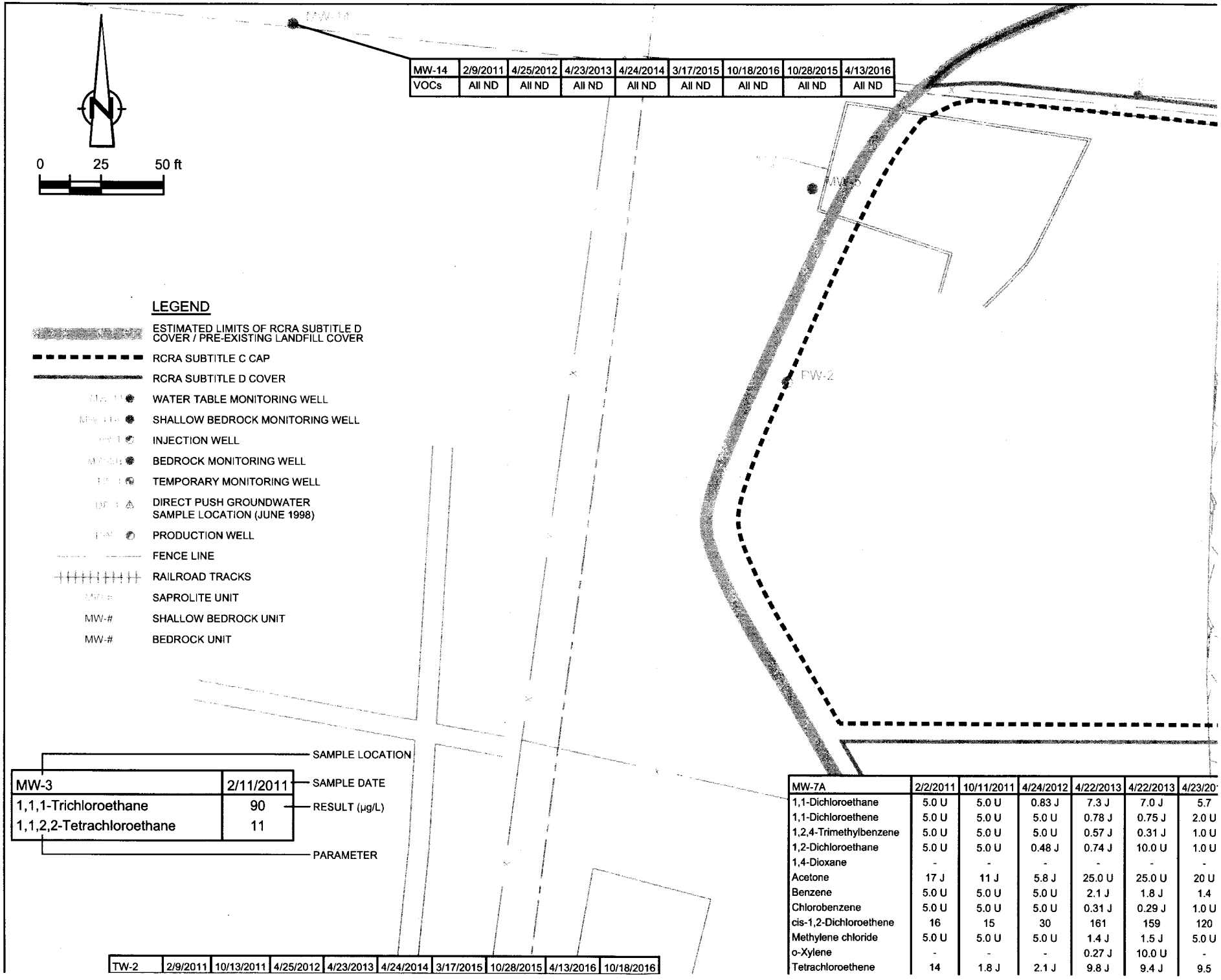
MW-39	2/16/2011	5/17/20
Bromoform	60	220
Chloroform (Trichloromethane)	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	9.1	11
Tetrachloroethene	330	220
Trichloroethene	3.6 J	5.0 U

MW-32	2/3/2011	5/17/2011	10/11/2011	10/30/2012	10/23/2013	10/14/2014	10/27/2015	10/18/2016
Bromoform	22	9.6	11 J	1.7 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	1.4 J	1.5 J	5.0 UJ	0.76 J	0.38 J	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	8.2	5.0 U	5.0 UJ	2.7 J	1.7	2.9	2.9	2.0
Dibromochloromethane	5.0 U	5.0 U	5.0 UJ	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	14	6.7	0.90 J	2.9 J	2.2	1.3	1.4	1.2
Tetrachloroethene	2000	2000	120 J	453	570	870	870	940 J
Trichloroethene	13	2.2 J	5.0 UJ	4.6 J	3.4	5.5	5.7	5.4

LEGEND

ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER

SAMPLE LOCATION

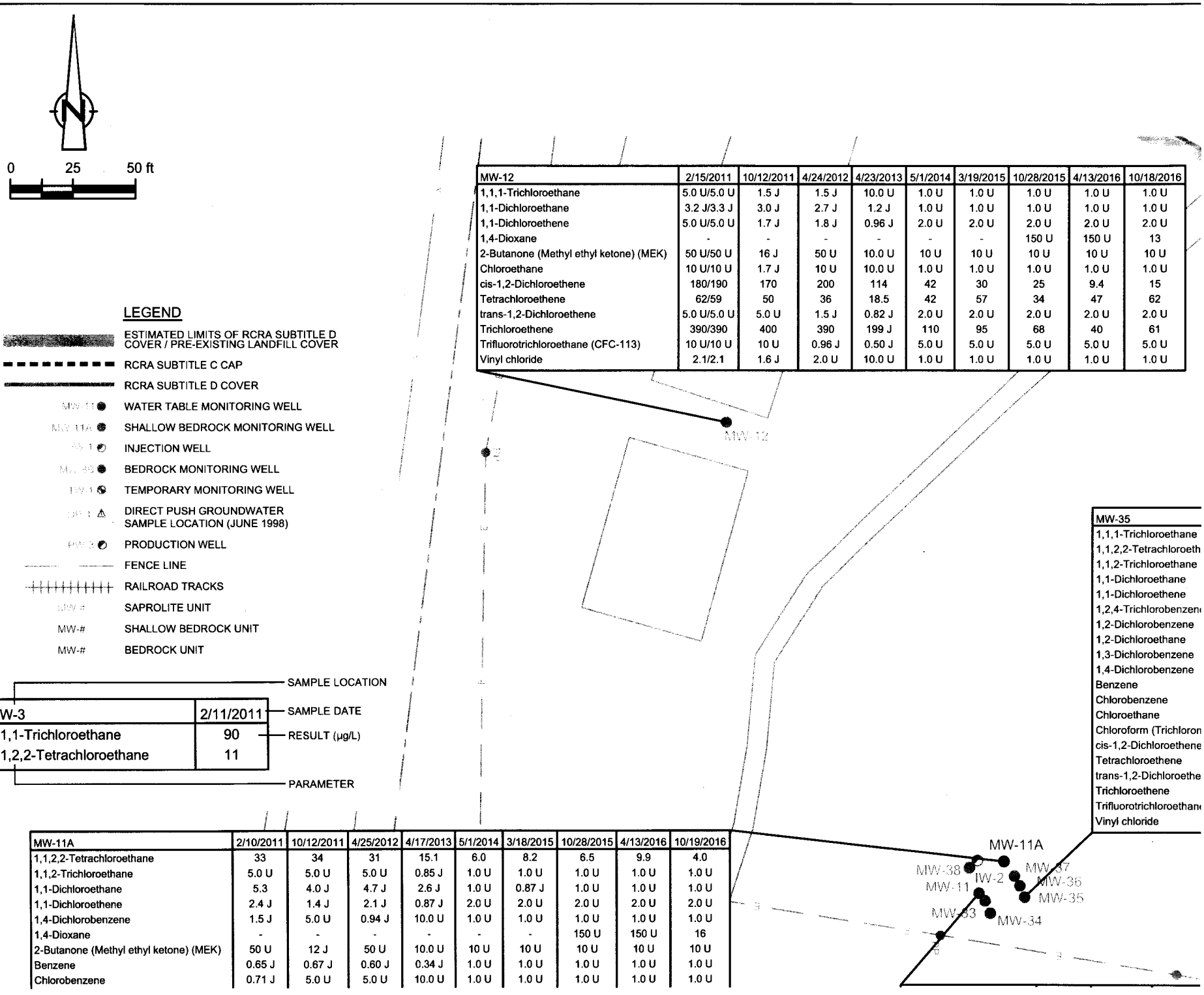


MW-14	2/9/2011	4/25/2012	4/23/2013	4/24/2014	3/17/2015	10/18/2016	10/28/2015	4/13/2016
VOCs	All ND	All ND	All ND	All ND	All ND	All ND	All ND	All ND

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

TW-2	2/9/2011	10/13/2011	4/25/2012	4/23/2013	4/24/2014	3/17/2015	10/28/2015	4/13/2016	10/18/2016

MW-7A	2/2/2011	10/11/2011	4/24/2012	4/22/2013	4/22/2013	4/23/20
1,1-Dichloroethane	5.0 U	5.0 U	0.83 J	7.3 J	7.0 J	5.7
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	0.78 J	0.75 J	2.0 U
1,2,4-Trimethylbenzene	5.0 U	5.0 U	5.0 U	0.57 J	0.31 J	1.0 U
1,2-Dichloroethane	5.0 U	5.0 U	0.48 J	0.74 J	10.0 U	1.0 U
1,4-Dioxane	-	-	-	-	-	-
Acetone	17 J	11 J	5.8 J	25.0 U	25.0 U	20 U
Benzene	5.0 U	5.0 U	5.0 U	2.1 J	1.8 J	1.4
Chlorobenzene	5.0 U	5.0 U	5.0 U	0.31 J	0.29 J	1.0 U
cis-1,2-Dichloroethene	16	15	30	161	159	120
Methylene chloride	5.0 U	5.0 U	5.0 U	1.4 J	1.5 J	5.0 U
o-Xylene	-	-	-	0.27 J	10.0 U	-
Tetrachloroethene	14	1.8 J	2.1 J	9.8 J	9.4 J	9.5



MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

MW-12	2/15/2011	10/12/2011	4/24/2012	4/23/2013	5/1/2014	3/19/2015	10/28/2015	4/13/2016	10/18/2016
1,1,1-Trichloroethane	5.0 U/5.0 U	1.5 J	1.5 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	3.2 J/3.3 J	3.0 J	2.7 J	1.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5.0 U/5.0 U	1.7 J	1.8 J	0.96 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dioxane	-	-	-	-	-	-	150 U	150 U	13
2-Butanone (Methyl ethyl ketone) (MEK)	50 U/50 U	16 J	50 U	10.0 U	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U/10 U	1.7 J	10 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	180/190	170	200	114	42	30	25	9.4	15
Tetrachloroethene	62/59	50	36	18.5	42	57	34	47	62
trans-1,2-Dichloroethene	5.0 U/5.0 U	5.0 U	1.5 J	0.82 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	390/390	400	390	199 J	110	95	68	40	61
Trifluorotrichloroethane (CFC-113)	10 U/10 U	10 U	0.96 J	0.50 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	2.1/2.1	1.6 J	2.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

MW-35
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroeth
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2,4-Trichlorobenzen
1,2-Dichlorobenzene
1,2-Dichloroethane
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Benzene
Chlorobenzene
Chloroethane
Chloroform (Trichloron
cis-1,2-Dichloroethene
Tetrachloroethene
trans-1,2-Dichloroethe
Trichloroethene
Trifluorotrichloroethan
Vinyl chloride

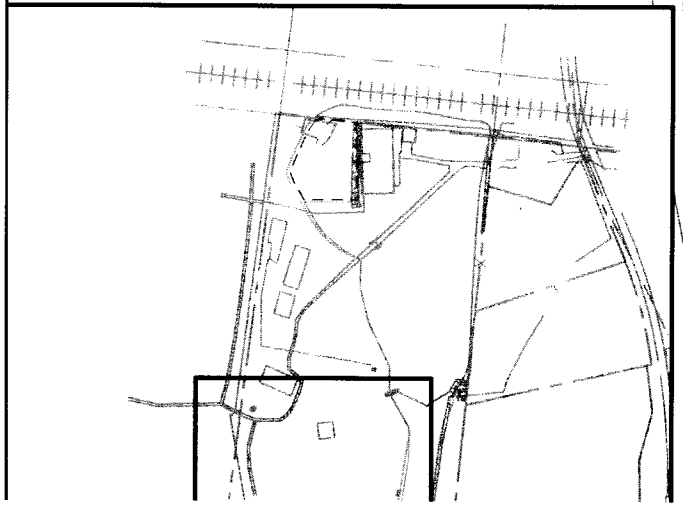
MW-11A	2/10/2011	10/12/2011	4/25/2012	4/17/2013	5/1/2014	3/18/2015	10/28/2015	4/13/2016	10/19/2016
1,1,2,2-Tetrachloroethane	33	34	31	15.1	6.0	8.2	6.5	9.9	4.0
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	0.85 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5.3	4.0 J	4.7 J	2.6 J	1.0 U	0.87 J	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	2.4 J	1.4 J	2.1 J	0.87 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	1.5 J	5.0 U	0.94 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	-	-	-	-	-	-	150 U	150 U	16
2-Butanone (Methyl ethyl ketone) (MEK)	50 U	12 J	50 U	10.0 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.65 J	0.67 J	0.60 J	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	0.71 J	5.0 U	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

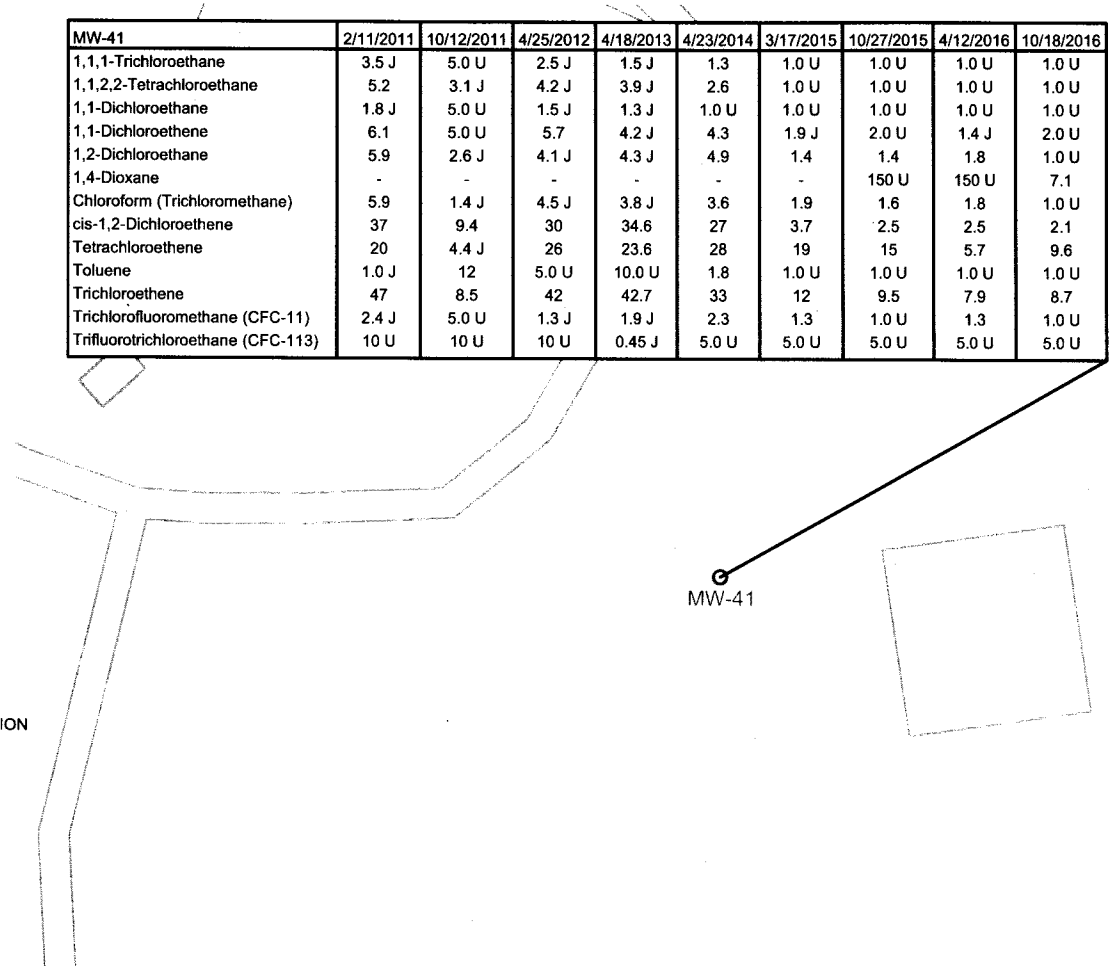
LEGEND

- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
- WATER TABLE MONITORING WELL
- SHALLOW BEDROCK MONITORING WELL
- INJECTION WELL
- BEDROCK MONITORING WELL
- TEMPORARY MONITORING WELL
- DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER





MW-41	2/11/2011	10/12/2011	4/25/2012	4/18/2013	4/23/2014	3/17/2015	10/27/2015	4/12/2016	10/18/2016
1,1,1-Trichloroethane	3.5 J	5.0 U	2.5 J	1.5 J	1.3	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5.2	3.1 J	4.2 J	3.9 J	2.6	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.8 J	5.0 U	1.5 J	1.3 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	6.1	5.0 U	5.7	4.2 J	4.3	1.9 J	2.0 U	1.4 J	2.0 U
1,2-Dichloroethane	5.9	2.6 J	4.1 J	4.3 J	4.9	1.4	1.4	1.8	1.0 U
1,4-Dioxane	-	-	-	-	-	-	150 U	150 U	7.1
Chloroform (Trichloromethane)	5.9	1.4 J	4.5 J	3.8 J	3.6	1.9	1.6	1.8	1.0 U
cis-1,2-Dichloroethene	37	9.4	30	34.6	27	3.7	2.5	2.5	2.1
Tetrachloroethene	20	4.4 J	26	23.6	28	19	15	5.7	9.6
Toluene	1.0 J	12	5.0 U	10.0 U	1.8	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	47	8.5	42	42.7	33	12	9.5	7.9	8.7
Trichlorofluoromethane (CFC-11)	2.4 J	5.0 U	1.3 J	1.9 J	2.3	1.3	1.0 U	1.3	1.0 U
Trifluorotrichloroethane (CFC-113)	10 U	10 U	10 U	0.45 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

MW-3
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroeth
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2,4-Trichlorobenzer
1,2-Dichlorobenzene
1,2-Dichloroethane
1,3-Dichlorobenzene
1,4-Dichlorobenzene
1,4-Dioxane
2-Butanone (Methyl e
Benzene
Chlorobenzene
Chloroethane
Chloroform (Trichloro
cis-1,2-Dichloroethen
Cyclohexane
Isopropyl benzene
o-Xylene
Tetrachloroethene
Toluene
trans-1,2-Dichloroeth
Trichloroethene
Vinyl chloride
Xylenes (total)

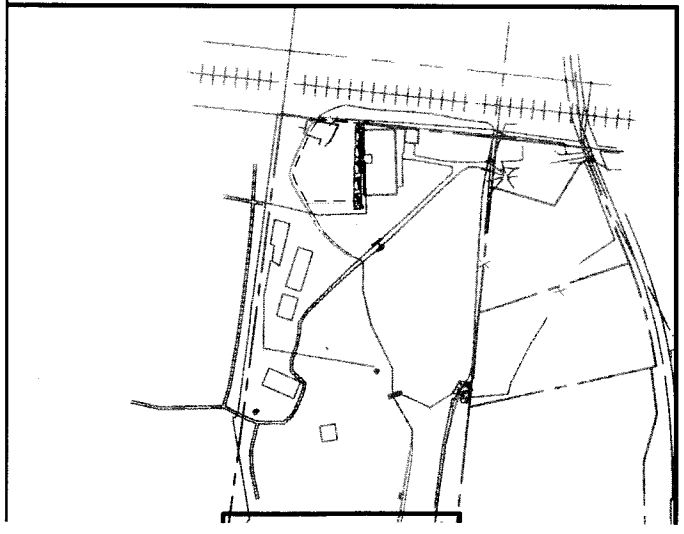
MW-13	2/9/2011	10/12/2011	4/26/2012	4/18/2013	4/24/2014	3
1,1,1-Trichloroethane	1.4 J	1.6 J	0.70 J	1.1 J	1.0 U	
1,1,2,2-Tetrachloroethane	12	11	7.1	7.9 J	5.7	
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	0.61 J	1.0 U	
1,1-Dichloroethane	15	30	11	16.4	7.5	
1,1-Dichloroethene	13	28	5.3	12.6	5.0	
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	0.32 J	1.0 U	
1,2-Dichloroethane	0.88 J	1.9 J	0.63 J	1.1 J	1.0 U	
1,4-Dichlorobenzene	5.0 U	0.99 J	5.0 U	0.54 J	1.0 U	
1,4-Dioxane	-	-	-	-	-	
Acetone	50 U	50 U	17 J	25.0 U	20 U	
Benzene	1.6 J	7.0	1.1 J	2.1 J	1.0 U	
Chlorobenzene	5.0 U	0.55 J	5.0 U	0.28 J	1.0 U	
Chloroethane	10 U	10 U	1.3 J	10.0 U	1.0 U	
Chloroform (Trichloromethane)	5.4	7.9	3.7 J	5.4 J	2.8	
cis-1,2-Dichloroethene	270	350	170	243	170	
Methyl cyclohexane	5.0 U	5.0 U	5.0 U	2.7 J	2.0 U	
Methylene chloride	5.0 U	2.2 J	5.0 U	10.0 U	5.0 U	
Tetrachloroethene	61	75	1.8 J	54.4	21	
Toluene	5.0 U	14	5.0 U	10.0 U	1.0 U	

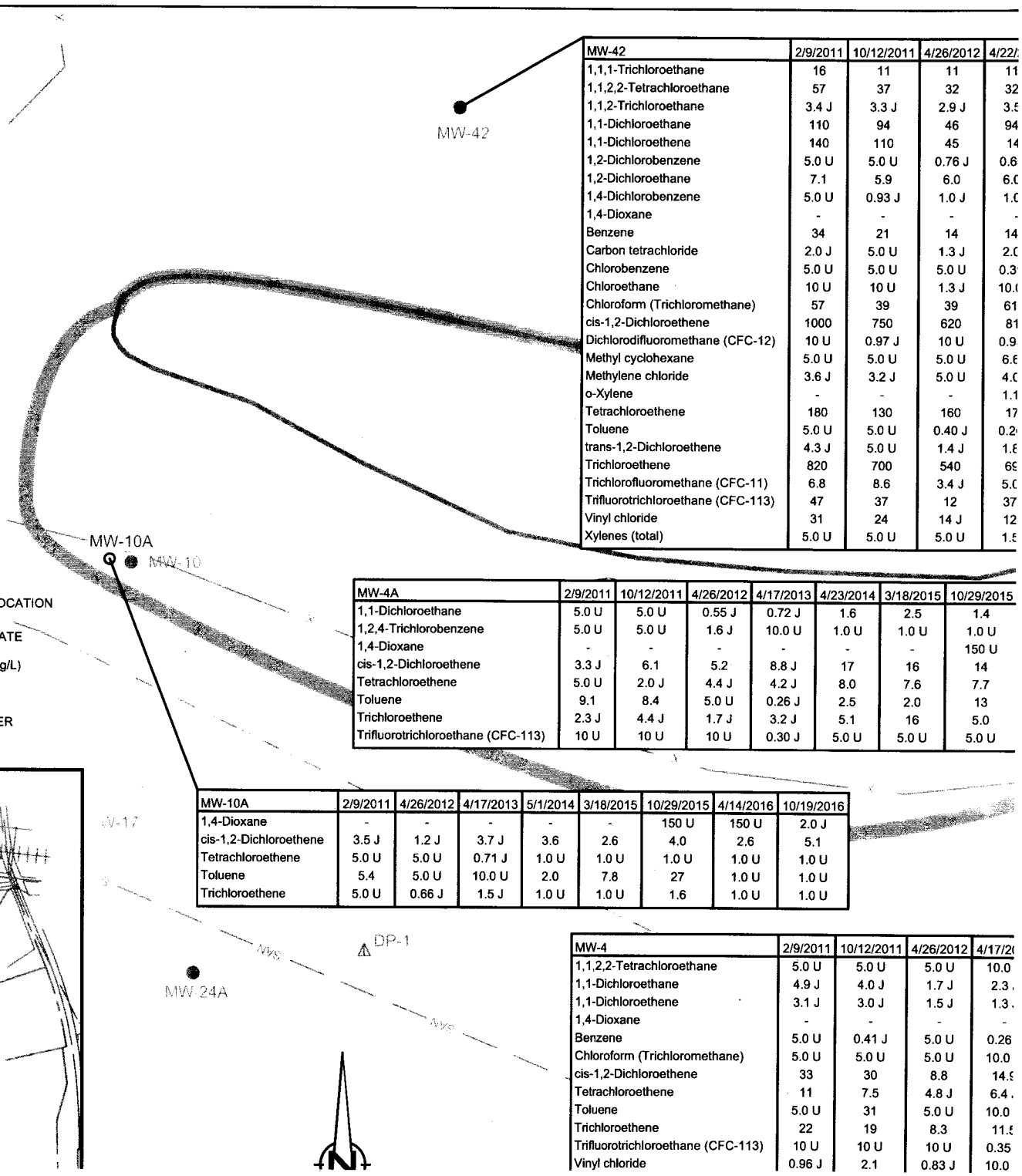
LEGEND

- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
- MW-11 WATER TABLE MONITORING WELL
- MW-11A SHALLOW BEDROCK MONITORING WELL
- RW-1 INJECTION WELL
- MW-4B BEDROCK MONITORING WELL
- TW-1 TEMPORARY MONITORING WELL
- DP-1 DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PW-1 PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- SW-# SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER



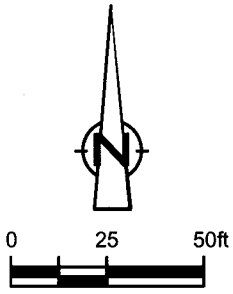


MW-42	2/9/2011	10/12/2011	4/26/2012	4/22/
1,1,1-Trichloroethane	16	11	11	11
1,1,2,2-Tetrachloroethane	57	37	32	32
1,1,2-Trichloroethane	3.4 J	3.3 J	2.9 J	3.5
1,1-Dichloroethane	110	94	46	94
1,1-Dichloroethene	140	110	45	14
1,2-Dichlorobenzene	5.0 U	5.0 U	0.76 J	0.6
1,2-Dichloroethane	7.1	5.9	6.0	6.0
1,4-Dichlorobenzene	5.0 U	0.93 J	1.0 J	1.0
1,4-Dioxane	-	-	-	-
Benzene	34	21	14	14
Carbon tetrachloride	2.0 J	5.0 U	1.3 J	2.0
Chlorobenzene	5.0 U	5.0 U	5.0 U	0.3
Chloroethane	10 U	10 U	1.3 J	10.0
Chloroform (Trichloromethane)	57	39	39	61
cis-1,2-Dichloroethene	1000	750	620	81
Dichlorodifluoromethane (CFC-12)	10 U	0.97 J	10 U	0.9
Methyl cyclohexane	5.0 U	5.0 U	5.0 U	6.6
Methylene chloride	3.6 J	3.2 J	5.0 U	4.0
o-Xylene	-	-	-	1.1
Tetrachloroethene	180	130	160	17
Toluene	5.0 U	5.0 U	0.40 J	0.2
trans-1,2-Dichloroethene	4.3 J	5.0 U	1.4 J	1.8
Trichloroethene	820	700	540	69
Trichlorofluoromethane (CFC-11)	6.8	8.6	3.4 J	5.0
Trifluorotrichloroethane (CFC-113)	47	37	12	37
Vinyl chloride	31	24	14 J	12
Xylenes (total)	5.0 U	5.0 U	5.0 U	1.5

MW-4A	2/9/2011	10/12/2011	4/26/2012	4/17/2013	4/23/2014	3/18/2015	10/29/2015
1,1-Dichloroethane	5.0 U	5.0 U	0.55 J	0.72 J	1.6	2.5	1.4
1,2,4-Trichlorobenzene	5.0 U	5.0 U	1.6 J	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	-	-	-	-	-	-	150 U
cis-1,2-Dichloroethene	3.3 J	6.1	5.2	8.8 J	17	16	14
Tetrachloroethene	5.0 U	2.0 J	4.4 J	4.2 J	8.0	7.6	7.7
Toluene	9.1	8.4	5.0 U	0.26 J	2.5	2.0	13
Trichloroethene	2.3 J	4.4 J	1.7 J	3.2 J	5.1	16	5.0
Trifluorotrichloroethane (CFC-113)	10 U	10 U	10 U	0.30 J	5.0 U	5.0 U	5.0 U

MW-10A	2/9/2011	4/26/2012	4/17/2013	5/1/2014	3/18/2015	10/29/2015	4/14/2016	10/19/2016
1,4-Dioxane	-	-	-	-	-	150 U	150 U	2.0 J
cis-1,2-Dichloroethene	3.5 J	1.2 J	3.7 J	3.6	2.6	4.0	2.6	5.1
Tetrachloroethene	5.0 U	5.0 U	0.71 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5.4	5.0 U	10.0 U	2.0	7.8	27	1.0 U	1.0 U
Trichloroethene	5.0 U	0.66 J	1.5 J	1.0 U	1.0 U	1.6	1.0 U	1.0 U

MW-4	2/9/2011	10/12/2011	4/26/2012	4/17/2
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	10.0
1,1-Dichloroethane	4.9 J	4.0 J	1.7 J	2.3
1,1-Dichloroethene	3.1 J	3.0 J	1.5 J	1.3
1,4-Dioxane	-	-	-	-
Benzene	5.0 U	0.41 J	5.0 U	0.26
Chloroform (Trichloromethane)	5.0 U	5.0 U	5.0 U	10.0
cis-1,2-Dichloroethene	33	30	8.8	14.9
Tetrachloroethene	11	7.5	4.8 J	6.4
Toluene	5.0 U	31	5.0 U	10.0
Trichloroethene	22	19	8.3	11.5
Trifluorotrichloroethane (CFC-113)	10 U	10 U	10 U	0.35
Vinyl chloride	0.96 J	2.1	0.83 J	10.0



LEGEND

- FENCE LINE
- SF — REGULAR SILT FENCE
- GRAVEL ACCESS PATH
- BUILDING STRUCTURE
- CONCRETE PAD
- RIP RAP
- STRAW EROSION CONTROL MAT
- COCONUT EROSION CONTROL MAT
- SVE WELLS
- ① HEADER NUMBER
- ON GRADE PIPING

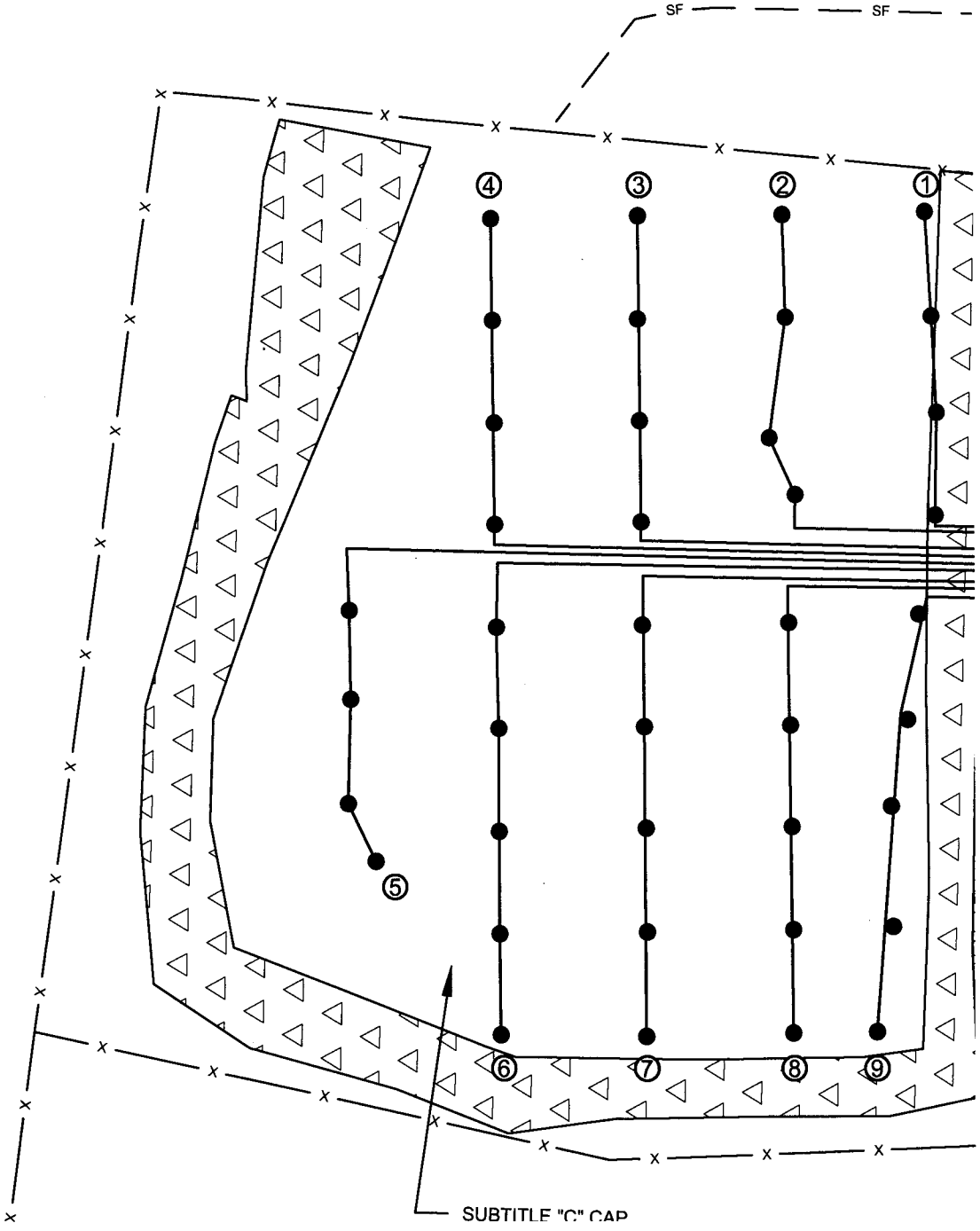
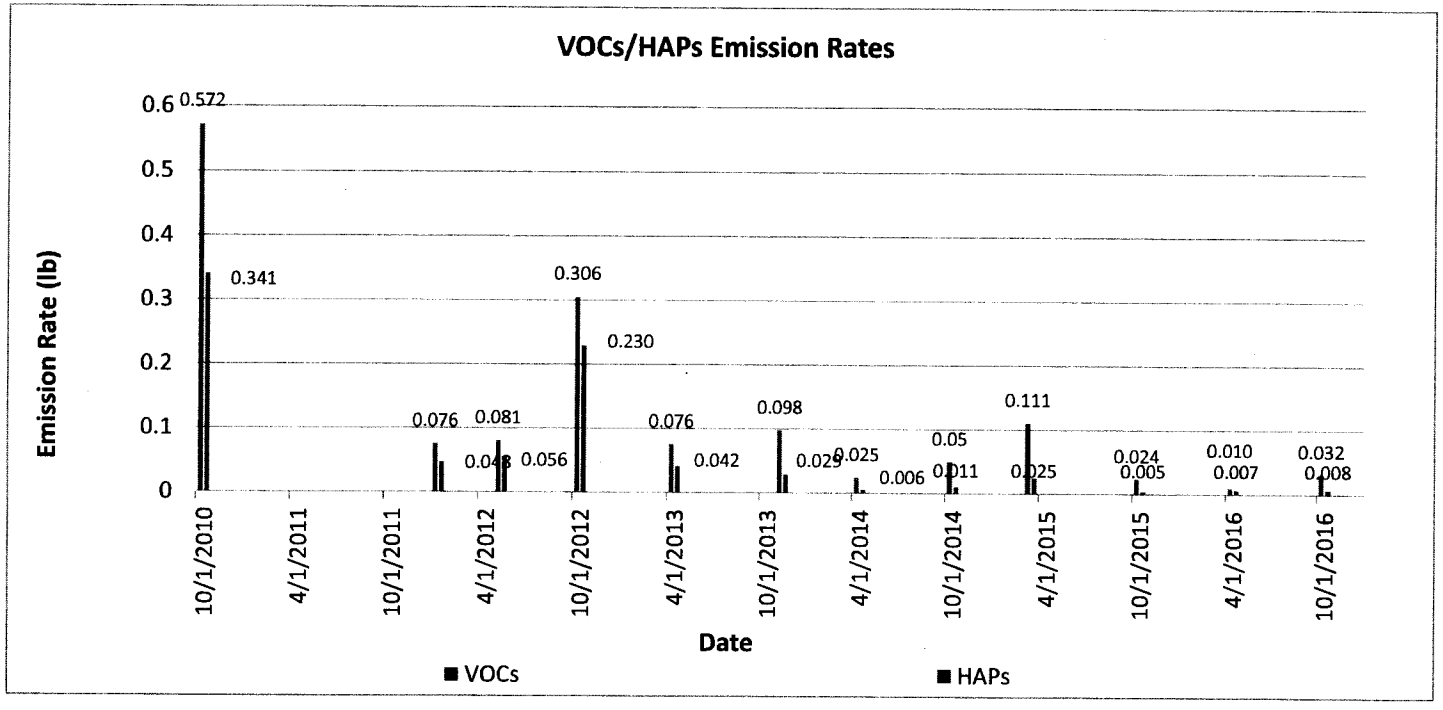


Figure 7



Note:
All samples were collected pre-carbon except the October 2010 sample which was collected post-carbon filter
THC as gas was inadvertently left out of the analysis list during the April 2016 event.

Tables

Table 1A

Groundwater Elevations - Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburg, South Carolina

Well	Unit	Reference Elevation	Depth to Groundwater (feet bTOC)	Groundwater Elevation (feet AMSL)
			October 17, 2016	
MW-1	Saprolite	832.82	34.80	798.02
MW-2	Saprolite	806.46	31.25	775.21
MW-3	Saprolite	821.18	42.06	779.12
MW-4	Saprolite	772.19	15.50	756.69
MW-5	Saprolite	845.93	19.39	826.54
MW-6	Saprolite	769.94	12.27	757.67
MW-7	Saprolite	826.01	29.57	796.44
MW-8	Saprolite	812.39	25.64	786.75
MW-9	Saprolite	806.19	26.41	779.78
MW-10	Saprolite	768.22	Damaged	
MW-11	Saprolite	827.96	37.22	790.74
MW-12	Saprolite	832.55	31.40	801.15
MW-14	Saprolite	873.42	43.19	830.23
MW-15	Saprolite	837.68	39.45	798.23
MW-16	Saprolite	801.39	30.39	771.00
MW-17	Saprolite	768.73	Not Found	
MW-18	Saprolite	827.95	48.80	779.15
MW-19	Saprolite	763.12	6.46	756.66
MW-20	Saprolite	864.24	64.69	799.55
MW-21	Saprolite	812.48	Damaged	
MW-22	Saprolite	764.00	8.71	755.29
MW-23	Saprolite	762.91	10.44	752.47
MW-24	Saprolite	772.25	15.87	756.38
MW-26	Saprolite	813.22	32.13	781.09
MW-27	Saprolite	831.09	34.06	797.03
MW-28	Saprolite	831.04	34.27	796.77
MW-29	Saprolite	830.50	33.86	796.64
MW-30	Saprolite	832.08	35.45	796.63
MW-31	Saprolite	831.77	36.14	795.63
MW-32	Saprolite	831.45	34.94	796.51
MW-33	Saprolite	827.14	38.49	788.65
MW-34	Saprolite	827.00	39.93	787.07
MW-35	Saprolite	825.65	38.48	787.17
MW-36	Saprolite	825.70	38.21	787.49
MW-37	Saprolite	825.76	38.04	787.72
MW-38	Saprolite	826.89	36.87	790.02
MW-39	Saprolite	828.51	36.40	792.11
MW-40	Saprolite	835.78	41.40	794.38
MW-42	Saprolite	805.98	43.54	762.44
TW-1	Saprolite	857.44	60.68	796.76
TW-2	Saprolite	870.16	46.61	823.55
TW-3	Saprolite	863.50	59.34	804.16
TW-4	Saprolite	865.66	44.08	821.58
IW-1	Saprolite	829.27	32.30	796.97
IW-2	Saprolite	824.44	34.90	789.54

Notes:

AMSL- Above Mean Sea Level
bTOC- Elevations are reported relative to NGVD

Table 1B

Groundwater Elevations - Shallow Bedrock Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Well	*Unit*	*Reference Elevation*	*Depth to Groundwater (feet bTOC)*	*Groundwater Elevation (feet AMSL)*
			October 17, 2016	
MW-2A	Shallow Bedrock	805.94	28.68	777.26
MW-7A	Shallow Bedrock	826.03	26.35	799.68
MW-8A	Shallow Bedrock	812.36	24.72	787.64
MW-9A	Shallow Bedrock	806.68	26.06	780.62
MW-10A	Shallow Bedrock	768.09	9.74	758.35
MW-13	Shallow Bedrock	828.91	59.57	769.34
MW-18A	Shallow Bedrock	827.86	DRY	-
MW-25	Shallow Bedrock	771.68	10.62	761.06
MW-41	Shallow Bedrock	849.20	72.58	776.62
TW-5	Shallow Bedrock	843.04	Unmarked	

Notes:

AMSL- Above Mean Sea Level
bTOC- Elevations are reported relative to NGVD

Table 1C

Groundwater Elevations - Bedrock Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Well	*Unit*	*Reference Elevation*	*Depth to Groundwater (feet bTOC)*	*Groundwater Elevation (feet AMSL)*
			October 17, 2016	
MW-4A	Bedrock	769.40	12.42	756.98
MW-6A	Bedrock	770.15	Damaged	
MW-8B	Bedrock	812.31	21.50	790.81
MW-9B	Bedrock	805.73	26.21	779.52
MW-11A	Bedrock	827.33	30.70	796.63
MW-16A	Bedrock	800.85	28.80	772.05
MW-23A	Bedrock	763.64	7.67	755.97
MW-24A	Bedrock	771.38	10.91	760.47

Notes:

AMSL- Above Mean Sea Level
bTOC- Elevations are reported relative to NGVD

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-27	MW-27	MW-27	MW-27
Location ID:		MW-27	MW-27	MW-27	MW-27
Sample Name:		GW-020311-SAG-105	GW-051811-DJB-005	GW-013926-041216-SAG-101	GW-013926-101816-SAG-003
Sample Date:		2/3/2011	5/18/2011	4/12/2016	10/18/2016
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	0.53 J	1.0 U	1.0 U
1,4-Dioxane	ug/L			150 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	10 U	10 U
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 U
Acetone	ug/L	13 J	50 UJ	20 U	20 U
Benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 UJ	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	8.6	1.0 J	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	17	5.8 J	1.3	1.6
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Tetrachloroethene	ug/L	**1800**	**630**	**600**	**570 J**
Toluene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Trichloroethene	ug/L	**13**	2.4 J	**2.6**	**3.3**
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 UJ	5.0 U	5.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27
	Sample Name:	GW-020311-SAG-105	GW-051811-DJB-005	GW-013926-041216-SAG-101	GW-013926-101816-SAG-003
	Sample Date:	2/3/2011	5/18/2011	4/12/2016	10/18/2016
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection
Parameters	**Units**				
Volatile Organic Compounds continued					
Vinyl chloride	ug/L	2.0 U	2.0 UJ	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Metals (Totals)					
Aluminum	mg/L	-	**1.72**	**11.7**	**4.59**
Antimony	mg/L	-	0.0053 J	0.000327 J	0.000256 J
Arsenic	mg/L	0.0500 U	0.0500 U	0.00596	0.00405 J
Barium	mg/L	0.314	0.284	0.388	0.179
Beryllium	mg/L	-	0.0007 J	0.000763 J	0.000337 J
Cadmium	mg/L	0.0050 U	0.0003 J	0.000535 J	0.000388 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	--
Calcium	mg/L	-	31.1	1.92	1.49
Chromium	mg/L	0.0094 J	**0.0385**	**0.02**	0.00939
Cobalt	mg/L	-	0.0018 J	0.00483 J	0.00216 J
Copper	mg/L	0.0011 J	0.0100 U	0.00221	0.00201
Iron	mg/L	**4.26**	**0.781**	**8.85**	**3.58**
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.1 U	0.1 U
Lead	mg/L	**0.221**	0.0100 U	0.00804	0.00328
Magnesium	mg/L	-	13.7	4.15	1.96
Manganese	mg/L	**0.637**	**0.661**	**0.754**	**0.276**
Manganese (dissolved)	mg/L	**0.515**	**0.490**	0.00204 J	**0.026**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U
Nickel	mg/L	-	0.0018 J	0.0143	0.00613
Potassium	mg/L	-	8.83	3.88	2.1
Selenium	mg/L	0.0200 U	0.0200 U	0.000313 J	0.00026 J
Silver	mg/L	-	0.0100 U	0.000033 J	0.000022 J
Sodium	mg/L	-	**395**	**42.6**	**39.6**
Thallium	mg/L	-	0.0200 U	0.000234 J	0.001 U
Vanadium	mg/L	-	0.0016 J	0.0776	0.0566
Zinc	mg/L	-	0.0186 J	0.0527	0.014
Wet Chemistry					
Ammonia	mg/L	-	0.194 J	0.020 U	0.045
Nitrate (as N)	mg/L	-	5.41 J	5.8	5.0
Orthophosphate	mg/L	-	0.0371 J	7.63	6.40
Sulfate	mg/L	**7.0**	**377**	**10**	**8.2**
Field Parameters					
pH	S.U	4.99	5.02	5.36	5.95
Dissolved Oxygen (DO)	mg/L	1.38	3.97	0.0	5.45
Oxidation-reduction potential (ORP)	mv	377	502	335	309

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-28	MW-28	MW-28	MW-28
Location ID:		MW-28	MW-28	MW-28	MW-28
Sample Name:		GW-020311-SAG-107	GW-051811-DJB-004	GW-013926-041216-MRB-001	GW-013926-101816-SAG-001
Sample Date:		2/3/2011	5/18/2011	4/12/2016	10/18/2016
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	R	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	–
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
1,4-Dioxane	ug/L			150 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	10 U	10 U
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 U
Acetone	ug/L	50 U	2.9 J	20 U	20 U
Benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 UJ	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	10	5.0 UJ	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	13	3.9 J	1.8	1.6
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Tetrachloroethene	ug/L	**1800**	520 J	**900**	**810 J**
Toluene	ug/L	5.0 U	R	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U
Trichloroethene	ug/L	**13**	0.83 J	**3.6**	**4.3**
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 UJ	5.0 U	5.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-28	MW-28	MW-28	MW-28
Location ID:		*MW-28*	*MW-28*	*MW-28*	MW-28
Sample Name:		*GW-020311-SAG-107*	*GW-051811-DJB-004*	*GW-013926-041216-MRB-001*	GW-013926-101816-SAG-001
Sample Date:		*2/3/2011*	*5/18/2011*	*4/12/2016*	10/18/2016
Performance Event:		*Pre-injection*	*1st Post-injection*	*12th Post-injection*	*13th Post-injection*
Volatile Organic Compounds continued					
Vinyl chloride	ug/L	2.0 U	2.0 UJ	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U
Metals (Totals)					
Aluminum	mg/L	-	**2.73**	**22.5**	**17.4**
Antimony	mg/L	-	0.0200 U	0.000222 J	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.00965	0.00781
Barium	mg/L	0.240	0.835	0.812	0.677
Beryllium	mg/L	-	0.0011 J	0.00146	0.00122
Cadmium	mg/L	0.0050 U	0.0008 J	0.000212 J	0.000198 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	--
Calcium	mg/L	-	80.9	1.95	1.69
Chromium	mg/L	0.0057 J	**0.0156**	**0.0384**	**0.0279**
Cobalt	mg/L	-	0.0023 J	0.00826	0.00618
Copper	mg/L	0.0100 U	0.0100 U	0.00452	0.00632
Iron	mg/L	**2.37**	**1.42**	17.7	13.8
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.1 U	0.1 U
Lead	mg/L	0.0013 J	0.0100 U	0.0159	0.0115
Magnesium	mg/L	-	36.7	8.29	6.2
Manganese	mg/L	**0.211**	**0.239**	**0.496**	**0.33**
Manganese (dissolved)	mg/L	**0.180**	**0.137**	**0.00983**	**0.0198**
Mercury	mg/L	-	0.00004 J	0.00020 U	0.00020 U
Nickel	mg/L	-	0.0057 J	0.0256	0.0193
Potassium	mg/L	-	8.61	7.04	5.5
Selenium	mg/L	0.0200 U	0.0200 U	0.000513 J	0.005 U
Silver	mg/L	-	0.0100 U	0.000067 J	0.000044 J
Sodium	mg/L	-	**169**	**60.4**	**52.8**
Thallium	mg/L	-	0.0200 U	0.000456 J	0.000297 J
Vanadium	mg/L	-	0.0028 J	0.141	0.103
Zinc	mg/L	-	0.0273	0.0692	0.035
Wet Chemistry					
Ammonia	mg/L	-	0.200 U	0.020 U	0.020 U
Nitrate (as N)	mg/L	-	3.24	5.4	4.7
Orthophosphate	mg/L	-	0.0105 UJ	13.8	12.0
Sulfate	mg/L	**4.2**	**77.5**	**13**	**18**
Field Parameters					
pH	S.U	5.21	4.65	6.05	6.16
Dissolved Oxygen (DO)	mg/L	1.54	1.14	5.32	2.59
Oxidation-reduction potential (ORP)	mv	395	532	239	302

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-32	MW-32	MW-32	MW-32	MW-32
Location ID:		MW-32	MW-32	MW-32	MW-32	MW-32
Sample Name:		GW-020311-EAH-008	GW-051711-DJB-003	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-101816-SAG-002
Sample Date:		2/3/2011	5/17/2011	4/12/2016	4/12/2016	10/18/2016
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	12th Post-injection Duplicate	13th Post-injection
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L			150 U	150 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	22	9.6	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	4.8 J	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	8.2	5.0 U	1.0 U	1.4	2.0
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	14	6.7	1.2	0.99 J	1.2
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**2000**	**2000**	**950**	**960**	**940 J**
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	**13**	2.2 J	4.6	4.4	5.4
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-32	MW-32	MW-32	MW-32	MW-32
Location ID:		*MW-32*	*MW-32*	*MW-32*	*MW-32*	MW-32
Sample Name:		*GW-020311-EAH-008*	*GW-051711-DJB-003*	*GW-013926-041216-MRB-002*	*GW-013926-041216-MRB-003*	GW-013926-101816-SAG-002
Sample Date:		*2/3/2011*	*5/17/2011*	*4/12/2016*	*4/12/2016*	10/18/2016
Performance Event:		*Pre-injection*	*1st Post-injection*	*12th Post-injection*	*12th Post-injection Duplicate*	*13th Post-injection*
Volatile Organic Compounds continued						
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Metals (Totals)						
Aluminum	mg/L	-	**7.99**	1.2	1.32	**7.64**
Antimony	mg/L	-	0.0024 J	0.00017 J	0.000154 J	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.000532 J	0.000532 J	0.00114 J
Barium	mg/L	0.294	0.533	0.0883	0.0947	0.284
Beryllium	mg/L	-	0.0012 J	0.000197 J	0.000221 J	0.00103
Cadmium	mg/L	0.0050 U	0.0050 U	0.0007 U	0.0007 U	0.000221 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	--
Calcium	mg/L	-	90.1	2.83	2.58	3
Chromium	mg/L	**0.0427**	**0.0332**	0.00957	0.0107	0.0208
Cobalt	mg/L	-	0.0049 J	0.000848 J	0.000921 J	0.00349 J
Copper	mg/L	0.0071 J	0.0088 J	0.00196 J	0.00148 J	0.00766
Iron	mg/L	**11.4**	**13.1**	1.77	1.95	**9.85**
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.1 U	0.1 U	0.0342 J
Lead	mg/L	0.0043 J	0.0053 J	0.0013	0.00136	0.0073
Magnesium	mg/L	-	35.3	1.12	1.19	2.36
Manganese	mg/L	**0.175**	**0.143**	0.0178	0.0202	**0.0892**
Manganese (dissolved)	mg/L	**0.0368**	0.0150 U	0.00268 J	0.00421 J	**0.0112**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00008 J	0.00007 J
Nickel	mg/L	-	0.0083 J	0.00249 J	0.00262 J	0.00709
Potassium	mg/L	-	8.48	1.48	1.56	2.59
Selenium	mg/L	0.0200 U	0.0200 U	0.000638 J	0.000423 J	0.000166 J
Silver	mg/L	-	0.0100 U	0.000051 J	0.000042 J	0.000162 J
Sodium	mg/L	-	**83.9**	**27.5**	**29.1**	**26.5**
Thallium	mg/L	-	0.0200 U	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	-	0.0324	0.00668	0.0075	0.0258
Zinc	mg/L	-	0.0408	0.0272 J	0.0117 J	0.0182
Wet Chemistry						
Ammonia	mg/L	-	0.200 U	0.020 U	0.020 U	0.020 U
Nitrate (as N)	mg/L	-	2.46	5.4	5.4	4.9
Orthophosphate	mg/L	-	0.0771 J	0.692	0.760	1.43
Sulfate	mg/L	**160**	**84.1**	**9.2**	**10**	**10**
Field Parameters						
pH	S.U	4.98	5.9	-	5.71	5.70
Dissolved Oxygen (DO)	mg/L	6.31	4.86	-	4.50	3.14
Oxidation-reduction potential (ORP)	mv	363	478	-	195	298

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-39	MW-39	MW-39	MW-39	MW-39
Location ID:		*MW-39*	*MW-39*	*MW-39*	*MW-39*	MW-39
Sample Name:		*GW-021611-DJB-216*	*GW-021611-DJB-217*	*GW-051711-DJB-002*	*GW-013926-041216-MRB-004*	GW-013926-101816-SAG-006
Sample Date:		*2/16/2011*	*2/16/2011*	*5/17/2011*	*4/12/2016*	10/18/2016
Performance Event:		*Pre-injection*	*Pre-injection*	*1st Post-injection*	*12th Post-injection*	*13th Post-injection*
			Duplicate			
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L				150 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Bromoform	ug/L	**60**	**57**	**220**	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	9.1	9.0	11	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**330**	**360**	**220**	**35**	**45**
Toluene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	3.6 J	3.2 J	5.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	5.0 U	5.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-39	MW-39	MW-39	MW-39	MW-39
Location ID:		MW-39	MW-39	MW-39	MW-39	MW-39
Sample Name:		GW-021611-DJB-216	GW-021611-DJB-217	GW-051711-DJB-002	GW-013926-041216-MRB-004	GW-013926-101816-SAG-006
Sample Date:		2/16/2011	2/16/2011	5/17/2011	4/12/2016	10/18/2016
Performance Event:		Pre-injection	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection
			Duplicate			
Volatile Organic Compounds continued						
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Metals (Totals)						
Aluminum	mg/L	-	-	**1.33**	**1.86**	**5.81**
Antimony	mg/L	-	-	0.0200 U	0.000238 J	0.000461 J
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.000219 J	0.000338 J
Barium	mg/L	0.193	0.190	0.345	0.213	0.213
Beryllium	mg/L	-	-	0.0004 J	0.000495 J	0.000671 J
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0007 U	0.000262 J
Cadmium (dissolved)	mg/L	0.0001 J	0.0050 U	-	-	--
Calcium	mg/L	-	-	1.80	1.03	0.818
Chromium	mg/L	0.0008 J	0.0009 J	0.0013 J	**0.00629**	**0.0083**
Cobalt	mg/L	-	-	0.0073 J	0.00383 J	0.00345 J
Copper	mg/L	0.0010 J	0.0488	0.0012 J	0.00143 J	0.00293
Iron	mg/L	-	-	**0.835**	**1.87**	**3.71**
Iron (dissolved)	mg/L	-	-	0.100 U	0.1 U	0.1 U
Lead	mg/L	0.0100 U	0.0100 U	0.0027 J	0.00703	0.0184
Magnesium	mg/L	-	-	4.03	3.26	2.55
Manganese	mg/L	-	-	**0.0939**	**0.048**	**0.0516**
Manganese (dissolved)	mg/L	-	-	**0.0855**	**0.0323**	**0.0302**
Mercury	mg/L	-	-	0.00020 U	0.00007 J	0.00020 U
Nickel	mg/L	-	-	0.0010 J	0.00242 J	0.00258 J
Potassium	mg/L	-	-	4.55	3.78	3.39
Selenium	mg/L	0.0200 U	0.0200 U	0.0045 J	0.000164 J	0.005 U
Silver	mg/L	-	-	0.0100 U	0.000054 J	0.000163 J
Sodium	mg/L	-	-	**9.42**	**18.2**	**11.4**
Thallium	mg/L	-	-	0.0200 U	0.000177 J	0.000183 J
Vanadium	mg/L	-	-	0.0011 J	0.00362 J	0.00482 J
Zinc	mg/L	-	-	0.0115 J	0.0202	0.0133
Wet Chemistry						
Ammonia	mg/L	-	-	0.200 U	0.020 U	0.020 U
Nitrate (as N)	mg/L	-	-	5.06	4.2	3.0
Orthophosphate	mg/L	-	-	0.0112 J	0.0316	0.0379
Sulfate	mg/L	**1.2**	**1.1**	1.43 U	**22**	**11**
Field Parameters						
pH	S.U	4.24	4.24	5.67	4.59	4.90
Dissolved Oxygen (DO)	mg/L	5.23	5.23	5.73	4.07	3.98
Oxidation-reduction potential (ORP)	mv	328	328	403	305	317

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-40	MW-40	MW-40	MW-40	MW-40
Location ID:		*MW-40*	*MW-40*	*MW-40*	MW-40	MW-40
Sample Name:		*GW-021611-DJB-218*	*GW-051711-DJB-001*	*GW-013926-041216-MRB-005*	GW-013926-101816-SAG-004	GW-013926-101816-SAG-005
Sample Date:		*2/16/2011*	*5/17/2011*	*4/12/2016*	10/18/2016	10/18/2016
Performance Event:		*Pre-injection*	*1st Post-injection*	*12th Post-injection*	*13th Post-injection*	*13th Post-injection*
						Duplicate
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	--	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L			150 U	2.0 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	3.2 J	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**71**	**54**	**14**	**15**	**9.9**
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-40	MW-40	MW-40	MW-40	MW-40
Location ID:		*MW-40*	*MW-40*	*MW-40*	MW-40	MW-40
Sample Name:		*GW-021611-DJB-218*	*GW-051711-DJB-001*	*GW-013926-041216-MRB-005*	GW-013926-101816-SAG-004	GW-013926-101816-SAG-005
Sample Date:		*2/16/2011*	*5/17/2011*	*4/12/2016*	10/18/2016	10/18/2016
Performance Event:		*Pre-injection*	*1st Post-injection*	*12th Post-injection*	*13th Post-injection*	*13th Post-injection* Duplicate
Volatile Organic Compounds continued						
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Metals (Totals)						
Aluminum	mg/L	-	**6.04**	**0.847**	**0.303**	**0.307**
Antimony	mg/L	-	0.0020 J	0.000255 J	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.000206 J	0.005 U	0.005 U
Barium	mg/L	0.198	0.230	0.182	0.17	0.17
Beryllium	mg/L	-	0.0005 J	0.000304 J	0.000283 J	0.00031 J
Cadmium	mg/L	0.0003 J	0.0016 J	0.000602 J	0.000464 J	0.000475 J
Cadmium (dissolved)	mg/L	0.0006 J	-	-	--	--
Calcium	mg/L	-	1.79	1.33	1.13	1.18
Chromium	mg/L	0.0017 J	0.0018 J	0.000951 J	0.005 U	0.005 U
Cobalt	mg/L	-	0.0401	0.0116	0.00687	0.00685
Copper	mg/L	0.0010 J	0.0019 J	0.00184 J	0.000606 J	0.00141 J
Iron	mg/L	-	**2.79**	**0.643**	**0.201**	**0.194**
Iron (dissolved)	mg/L	-	**0.620**	0.1 U	0.0399 J	0.1 U
Lead	mg/L	0.0100 U	0.0136	0.00297	0.00112	0.00117
Magnesium	mg/L	-	3.61	2.41	2.23	2.2
Manganese	mg/L	-	**1.53**	**0.655**	**0.419**	**0.421**
Manganese (dissolved)	mg/L	-	**1.58**	**0.634**	**0.42**	**0.442**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Nickel	mg/L	-	0.0083 J	0.00555	0.00423 J	0.00425 J
Potassium	mg/L	-	6.63	4.67	4.27	4.37
Selenium	mg/L	0.0200 U	0.0044 J	0.000906 J	0.000508 J	0.000572 J
Silver	mg/L	-	0.0100 U	0.001 U	0.001 U	0.001 U
Sodium	mg/L	-	**8.23**	**6.38**	**5.35**	**5.41**
Thallium	mg/L	-	0.0022 J	0.000631 J	0.000573 J	0.000578 J
Vanadium	mg/L	-	0.0022 J	0.000813 J	0.005 U	0.00167 J
Zinc	mg/L	-	0.0273	0.027	0.01	0.0101
Wet Chemistry						
Ammonia	mg/L	-	0.200 U	0.020 U	0.020 U	0.020 U
Nitrate (as N)	mg/L	-	2.87	2.9	1.6	1.6
Orthophosphate	mg/L	-	0.0100 UJ	0.0100 U	0.0100 U	0.00602 J
Sulfate	mg/L	**16**	**13.6**	**10**	**7.8**	**7.4**
Field Parameters						
pH	S.U	4.14	5.91	4.28	4.93	-
Dissolved Oxygen (DO)	mg/L	3.9	3.85	3.09	2.49	-
Oxidation-reduction potential (ORP)	mv	294	177	324	371	-

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27	Percent	MW-28
	Sample Name:	GW-020311-SAG-105	GW-051811-DJB-005	GW-013926-041216-SAG-101	GW-013926-101816-SAG-003	removal	GW-020311-SAG-107
	Sample Date:	2/3/2011	5/18/2011	4/12/2016	10/18/2016		2/3/2011
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	(%)	Pre-injection
Parameters	**Units**						
Volatile Organic Compounds							
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U		5.0 U
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	1.0 U	1.0 U		5.0 U
cis-1,2-Dichloroethene	ug/L	**8.6**	1.0 J	1.0 U	1.0 U	100	**10**
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U		5.0 U
Methyl tert butyl ether (MTBE)	ug/L	**17**	5.8 J	**1.3**	**1.6**	91	**13**
Tetrachloroethene	ug/L	**1800**	**630**	**600**	**570 J**	68	**1800**
Trichloroethene	ug/L	**13**	2.4 J	**2.6**	**3.3**	75	**13**
Metals							
Sodium	mg/L	-	**395**	**42.6**	**39.6**		-
Wet Chemistry							
Sulfate	mg/L	**7.0**	**377**	**10**	**8.2**		**4.2**
Field Parameters							
pH	S.U	4.99	5.02	5.36	5.95		5.21
Dissolved Oxygen (DO)	mg/L	1.38	3.97	0	5.45		1.54
Oxidation-reduction potential (ORP)	mv	377	502	335	309		395

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-32	MW-32	MW-32	MW-32	MW-32
	Sample Name:	GW-020311-EAH-008	GW-051711-DJB-003	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-101816-SAG-002
	Sample Date:	2/3/2011	5/17/2011	4/12/2016	4/12/2016	10/18/2016
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	12th Post-injection	13th Post-injection
Parameters	**Units**				Duplicate	
Volatile Organic Compounds						
Bromoform	ug/L	**22**	**9.6**	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	**8.2**	5.0 U	1.0 U	**1.4**	**2.0**
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	**14**	**6.7**	**1.2**	0.99 J	**1.2**
Tetrachloroethene	ug/L	**2000**	**2000**	**950**	**960**	**940 J**
Trichloroethene	ug/L	**13**	**2.2 J**	**4.6**	**4.4**	**5.4**
Metals						
Sodium	mg/L	-	**83.9**	**27.5**	**29.1**	**26.5**
Wet Chemistry						
Sulfate	mg/L	**160**	**84.1**	**9.2**	**10**	**10**
Field Parameters						
pH	S.U	4.98	5.90	5.71	-	5.70
Dissolved Oxygen (DO)	mg/L	6.31	4.86	4.5	-	3.14
Oxidation-reduction potential (ORP)	mv	363	478	195	-	298

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-39	MW-39	Percent	MW-40	MW-40	MW-40
	Sample Name:	GW-013926-041216-MRB-004	GW-013926-101816-SAG-006	removal	GW-021611-DJB-218	GW-051711-DJB-001	GW-013926-041216-MRI
	Sample Date:	4/12/2016	10/18/2016		2/16/2011	5/17/2011	4/12/2016
	Performance Event:	12th Post-injection	13th Post-injection	(%)	Pre-injection	1st Post-injection	12th Post-injection
Parameters	**Units**						
Volatile Organic Compounds							
Bromoform	ug/L	1.0 U	1.0 U	100	5.0 U	5.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U		5.0 U	5.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U		5.0 U	3.2 J	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U		5.0 U	5.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	100	5.0 U	5.0 U	1.0 U
Tetrachloroethene	ug/L	**94**	**45**	86	**71**	**54**	**14**
Trichloroethene	ug/L	1.0 U	1.0 U	100	5.0 U	5.0 U	1.0 U
Metals							
Sodium	mg/L	**13.7**	**11.4**		-	**8.23**	**6.38**
Wet Chemistry							
Sulfate	mg/L	**13**	**11**		**16**	**13.6**	**10**
Field Parameters							
pH	S.U	4.59	4.90		4.41	5.91	4.28
Dissolved Oxygen (DO)	mg/L	4.07	3.98		3.90	3.85	3.09
Oxidation-reduction potential (ORP)	mv	305	317		294	177	324

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-3	MW-3	MW-3	MW-3	MW-4	MW-4
Sample ID:		GW-021110-EAH-023	GW-101211-SAG-009	GW-013926-041316-MRB-010	GW-013926-101916-DJB-107	GW-020911-DJB-208	GW-101211-DJB-107
Sample Date:		2/11/2011	10/12/2011	4/13/2016	10/19/2016	2/9/2011	10/12/2011
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	90	260	24	53	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	11	4.0 J	2.0	14	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.4	6.6	1.0 U	4.4	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	69	84	5.6	15	4.9 J	4.0 J
1,1-Dichloroethene	ug/L	15	21	1.7 J	6.7	3.1 J	3.0 J
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	2.7	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	4.2 J	1.8 J	1.0 U	4.2	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	6.0	2.7 J	1.0 U	3.2	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	2.4 J	1.2 J	1.0 U	2.5	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3.0 J	1.3 J	1.0 U	3.0	5.0 U	5.0 U
1,4-Dioxane	ug/L		-	150 U	340 J	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	10 U	10 U	50 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	50 U	50 U
Benzene	ug/L	11	4.6 J	1.0 U	3.4	5.0 U	0.41 J
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	10	3.7 J	1.0 U	11	5.0 U	5.0 U
Chloroethane	ug/L	5.6 J	2.8 J	1.0 U	3.2	10 U	10 U
Chloroform (Trichloromethane)	ug/L	7.0	5.0 J	0.97 J	5.1	5.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	310	130	12	320	33	30
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	10 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	170	440	83	170	11	7.5
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	31
trans-1,2-Dichloroethene	ug/L	5.6	5.0 U	2.0 U	4.8	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	49	99	15	42	22	19
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	10 U	10 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-3 GW-021110-EAH-023 2/11/2011	MW-3 GW-101211-SAG-009 10/12/2011	MW-3 GW-013926-041316-MRB-010 4/13/2016	MW-3 GW-013926-101916-DJB-107 10/19/2016	MW-4 GW-020911-DJB-208 2/9/2011	MW-4 GW-101211-DJB-107 10/12/2011
Metals							
Arsenic	mg/L	-	0.0500 U	0.00235 J	0.00192 J	0.0500 U	0.0500 U
Arsenic (dissolved)	mg/L	-	-	-	--	0.0500 U	-
Barium	mg/L	-	0.242	0.278	0.382	0.171	0.179
Barium (dissolved)	mg/L	-	-	-	--	0.148	-
Cadmium	mg/L	-	0.0050 U	0.000496 J	0.00057 J	0.0050 U	0.0050 U
Cadmium (dissolved)	mg/L	-	-	-	--	0.0050 U	-
Chromium	mg/L	-	0.0011 J	0.005 U	0.005 U	0.0100 U	0.0100 U
Chromium Total (dissolved)	mg/L	-	-	-	--	0.0100 U	-
Copper	mg/L	-	0.0100 U	0.00236	0.000906 J	0.0100 U	0.0100 U
Copper (dissolved)	mg/L	-	-	-	--	0.0100 U	-
Iron	mg/L	17.3	12.9	6.69	4.79	0.157	0.100 U
Iron (dissolved)	mg/L	12.9	-	--	--	0.100 U	-
Lead	mg/L	-	0.0100 U	0.00102	0.001 U	0.0100 U	0.0100 U
Lead (dissolved)	mg/L	-	-	-	--	0.0100 U	-
Manganese	mg/L	10.9 J	9.35	--	13.8	2.51	2.81
Manganese (dissolved)	mg/L	10.0 J	-	-	--	2.26	-
Selenium	mg/L	-	0.0083 J	0.000572 J	0.005 U	0.0200 U	0.0200 U
Selenium (dissolved)	mg/L	-	-		--	0.0200 U	-
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	8.7 J	9 U	9 U
Ethene	ug/L	7 U	7 U	7.0 U	7.2	7 U	7 U
Methane	ug/L	1400	99	4.0 U	580	4 U	21
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	42.9	27.8	22.0	37.0	37.9	34.1
Ammonia	mg/L	-	0.188 J	0.020 U	0.071	-	0.056 J
Chloride	mg/L	58	44	18	47	8.5	8.7
Ferrous iron	mg/L	12.6	-	-	--	0.100 UJ	-
Nitrate (as N)	mg/L	0.25 U	2.5 U	6.1	0.33	6.8	9.4
Orthophosphate	mg/L	-	0.0100 U	0.00986 J	0.00804 J	-	0.0389
Sulfate	mg/L	18	9.6 J	7.7	8.3	11	15
Total organic carbon (TOC)	mg/L	4.12 U	4.83	4.72	7.80	5.00 U	2.89
Field Parameters							
pH	S.U	5.32	5.69	5.39	5.53	4.96	5.63
DO	mg/L	0.52	0.68	2.92	0.0	2.5	0.36
ORP	mv	117	90	275	109	330	101

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-11	MW-11	MW-11	MW-11	MW-12	MW-12
Sample ID:		GW-021011-DJB-210	GW-101211-SAG-006	GW-013926-041316-MRB-006	GW-013926-101916-SAG-010	GW-021511-DJB-214	GW-021511-DJB-215
Sample Date:		2/10/2011	10/12/2011	4/13/2016	10/19/2016	2/15/2011	2/15/2011
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	4.4 J	3.4 J	3.0	1.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	3.2 J	3.3 J
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,4-Dioxane	ug/L	-	-	150 U	2.1	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	50 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	50 U	50 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	10 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	14	9.6	8.2	1.0 U	180	190
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	10 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	16	7.2	11	9.4	62	59
Toluene	ug/L	41	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	34	19	28	5.4	390	390
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	10 U	10 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-11 GW-021011-DJB-210 2/10/2011	MW-11 GW-101211-SAG-006 10/12/2011	MW-11 GW-013926-041316-MRB-006 4/13/2016	MW-11 GW-013926-101916-SAG-010 10/19/2016	MW-12 GW-021511-DJB-214 2/15/2011	MW-12 GW-021511-DJB-215 2/15/2011
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.005 U	0.005 U	-	-
Arsenic (dissolved)	mg/L	0.0500 U	-	-	--	-	-
Barium	mg/L	0.119	0.110	0.0655	0.0593	-	-
Barium (dissolved)	mg/L	0.112	-	-	--	-	-
Cadmium	mg/L	0.0005 J	0.0002 J	0.000286 J	0.00048 J	-	-
Cadmium (dissolved)	mg/L	0.0050 U	-	-	--	-	-
Chromium	mg/L	0.0100 U	0.0100 U	0.005 U	0.005 U	-	-
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	--	-	-
Copper	mg/L	0.0100 U	0.0100 U	0.00283	0.00115 J	-	-
Copper (dissolved)	mg/L	0.0100 U	-	-	--	-	-
Iron	mg/L	0.117	0.100 U	0.308	0.0686 J	0.156	0.100 U
Iron (dissolved)	mg/L	0.100 U	-	--	--	0.100 U	0.100 U
Lead	mg/L	0.0100 U	0.0014 J	0.000907 J	0.001 U	-	-
Lead (dissolved)	mg/L	0.0100 U	-	-	--	-	-
Manganese	mg/L	1.03	0.867	--	0.398	0.184	0.186
Manganese (dissolved)	mg/L	1.02	-	-	--	0.178	0.180
Selenium	mg/L	0.0200 U	0.0200 U	0.000368 J	0.005 U	-	-
Selenium (dissolved)	mg/L	0.0200 U	-		--	-	-
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9 U	9 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7 U	7 U
Methane	ug/L	4 U	4 U	31	1.9 J	4 U	4 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	8.7 J	8.9 J	5.00	11.0	15.5	14.5
Ammonia	mg/L	0.200 U	0.030 J	0.211	0.020 U	-	-
Chloride	mg/L	16	12	7.1	5.8	10	10
Ferrous iron	mg/L	0.100 UJ	-	-	--	0.100 U	0.100 U
Nitrate (as N)	mg/L	0.65	0.47	0.26	0.26	0.75	0.76
Orthophosphate	mg/L	0.00584 J	0.0100 U	0.00856 J	0.0100 U	-	-
Sulfate	mg/L	1.0 U	1.0 U	0.39 J	0.99 J	2.3	3.8
Total organic carbon (TOC)	mg/L	3.36	3.43	7.48	2.09	5.00 U	1.00 U
Field Parameters							
pH	S.U	5.21	5.29	4.57	5.49	4.67	4.67
DO	mg/L	9.02	4.77	7.0	2.16	3.23	3.23
ORP	mv	325	305	261	332	356	356

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-14	MW-14	MW-14	MW-14	MW-35	MW-35
Sample ID:		GW-020911-SAG-119	GW-101311-SAG-012	GW-013926-041316-SAG-106	GW-013926-101816-DJB-102	GW-021011-EAH-018	GW-101211-SAG-008
Sample Date:		2/9/2011	10/13/2011	4/13/2016	10/18/2016	2/10/2011	10/12/2011
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	1.1 J
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	18	33
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	9.2	11
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	3.2 J	3.4 J
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	0.94 J	1.8 J
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.6 J	2.1 J
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	3.3 J	4.9 J
1,4-Dioxane	ug/L	-	-	150 U	2.0 U	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	50 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	50 U	50 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	6.2	11
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.2 J	1.6 J
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	4.3 J	5.5 J
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	2.2 J
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	72	78
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	10 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	16	18
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	170	210
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	10 U	10 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-14 GW-020911-SAG-119 2/9/2011	MW-14 GW-101311-SAG-012 10/13/2011	MW-14 GW-013926-041316-SAG-106 4/13/2016	MW-14 GW-013926-101816-DJB-102 10/18/2016	MW-35 GW-021011-EAH-018 2/10/2011	MW-35 GW-101211-SAG-008 10/12/2011
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.000421 J	0.005 U	0.0500 U	0.0500 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	--	0.0500 U	-
Barium	mg/L	0.0443	0.0487	0.0488	0.0424	0.523	0.411
Barium (dissolved)	mg/L	0.0383	-	-	--	0.453	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.000188 J	0.0007 U	0.0004 J	0.0003 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	--	0.0001 J	-
Chromium	mg/L	0.0100 U	0.0015 J	0.005 U	0.005 U	0.0100 U	0.0100 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	--	0.0100 U	-
Copper	mg/L	0.0009 J	0.0100 U	0.002 U	0.000953 J	0.0019 J	0.0020 J
Copper (dissolved)	mg/L	0.0100 U	-	-	--	0.0100 U	-
Iron	mg/L	0.332	1.21	0.465	0.489	0.395	0.123 U
Iron (dissolved)	mg/L	0.100 U	-	--	--	0.0397 J	-
Lead	mg/L	0.0100 U	0.0008 J	0.000514 J	0.001 U	0.0100 U	0.0007 J
Lead (dissolved)	mg/L	0.0100 U	-	-	--	0.0100 U	-
Manganese	mg/L	0.0039 J	0.0090 J	--	0.00502	0.684	0.507
Manganese (dissolved)	mg/L	0.0063 J	-	-	--	0.610	-
Selenium	mg/L	0.0200 U	0.0200 U	0.00153 J	0.005 U	0.0200 U	0.0200 U
Selenium (dissolved)	mg/L	0.0200 U	-		--	0.0200 U	-
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	-	9 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	-	7 U
Methane	ug/L	7	4 U	4.0 U	1.6 J	-	1300
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	11.9	10.0 U	21.0	19.0	-	6.3 J
Ammonia	mg/L	-	0.020 J	0.020 U	0.020 U	0.046 J	0.068 J
Chloride	mg/L	5.8	2.3	2.5	2.1	-	53
Ferrous iron	mg/L	0.100 UJ	-	-	--	0.100 U	-
Nitrate (as N)	mg/L	1.3	1.4	1.7	1.4	0.31	0.34
Orthophosphate	mg/L	-	0.0171	0.0103	0.0123	0.00747 J	0.0127
Sulfate	mg/L	14	16	15	13	1.7	1.4
Total organic carbon (TOC)	mg/L	1.00 U	0.565 J	0.961 J	1.00 U	-	6.98
Field Parameters							
pH	S.U	4.94	5.45	5.1	5.68	4.38	4.88
DO	mg/L	6.5	5.14	1.27	4.92	0	0.91
ORP	mv	455	290	309	255	352	268

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-42	MW-42	MW-42	MW-42	TW-2
Sample ID:		GW-020911-EAH-017	GW-101211-SAG-011	GW-013926-041216-SAG-102	GW-013926-101916-DJB-106	GW-020911-EAH-016
Sample Date:		2/9/2011	10/12/2011	4/12/2016	10/19/2016	2/9/2011
Parameters	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	16	11	2.6	2.1	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	57	37	16	8.5	5.0 U
1,1,2-Trichloroethane	ug/L	3.4 J	3.3 J	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	ug/L	110	94	22	23	5.0 U
1,1-Dichloroethene	ug/L	140	110	25	31	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	7.1	5.9	2.4	2.2	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	0.93 J	1.0 U	1.0 U	5.0 U
1,4-Dioxane	ug/L	-	-	150 U	550 J	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	50 U
Benzene	ug/L	34	21	0.60 J	0.86 J	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 J	5.0 U	2.0 U	2.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	10 U
Chloroform (Trichloromethane)	ug/L	57	39	15	14	5.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U
cis-1,2-Dichloroethene	ug/L	1000	750	190	230	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	0.97 J	1.0 U	1.0 U	10 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Methylene chloride	ug/L	3.6 J	3.2 J	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Tetrachloroethene	ug/L	180	130	49	110	5.0 U
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	4.3 J	5.0 U	2.0 U	2.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U
Trichloroethene	ug/L	820	700	230	320	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	6.8	8.6	4.0	2.6	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	47	37	6.7	5.0 U	10 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-42 GW-020911-EAH-017 2/9/2011	MW-42 GW-101211-SAG-011 10/12/2011	MW-42 GW-013926-041216-SAG-102 4/12/2016	MW-42 GW-013926-101916-DJB-106 10/19/2016	TW-2 GW-020911-EAH-016 2/9/2011
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.000432 J	0.000237 J	0.0500 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	--	0.0500 U
Barium	mg/L	0.488	0.351	0.184	0.234	0.389
Barium (dissolved)	mg/L	0.125	-	-	--	0.0227
Cadmium	mg/L	0.0050 U	0.0050 U	0.000359 J	0.0007 U	0.0050 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	--	0.0050 U
Chromium	mg/L	0.0214	0.0130	0.00132 J	0.005 U	0.0416
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	--	0.0100 U
Copper	mg/L	0.0028 J	0.0014 J	0.000378 J	0.000645 J	0.0721
Copper (dissolved)	mg/L	0.0100 U	-	-	--	0.0011 J
Iron	mg/L	11.1	7.27	0.679	0.906	19.9
Iron (dissolved)	mg/L	0.0316 J	-	--	--	0.0864 J
Lead	mg/L	0.0100 U	0.0024 J	0.000261 J	0.001 U	0.0174
Lead (dissolved)	mg/L	0.0100 U	-	-	--	0.0100 U
Manganese	mg/L	0.218	0.176	--	0.0322	1.99
Manganese (dissolved)	mg/L	0.0501	-	-	--	0.638
Selenium	mg/L	0.0200 U	0.0200 U	0.000989 J	0.005 U	0.0200 U
Selenium (dissolved)	mg/L	0.0200 U	-		--	0.0200 U
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7 U
Methane	ug/L	95	110	12	8.5	890
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	59.7	53.0	26.0	40.0	42.6
Ammonia	mg/L	-	0.060 J	0.020 U	0.034	-
Chloride	mg/L	2.2	2.0	14 J	13	1.9
Ferrous iron	mg/L	1.51 J	-	-	--	0.200 UJ
Nitrate (as N)	mg/L	0.42	0.38	1.6	1.2	0.62
Orthophosphate	mg/L	-	0.123	0.147	0.151	-
Sulfate	mg/L	1.5	0.56 J	0.46 J	0.49 J	2.8
Total organic carbon (TOC)	mg/L	0.730 J	3.25	9.42	0.650 J	1.00 U
Field Parameters						
pH	S.U	5.94	5.88	5.32	5.97	6.65
DO	mg/L	1.4	0.6	0.0	0.0	1.99
ORP	mv	147	153	299	107	210

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

						Shallow Bedrock Unit	
	Sample Location:	MW-7A	MW-7A	MW-7A	MW-7A	MW-10A	
	Sample ID:	GW-020211-EAH-001	GW-101111-SAG-005	GW-013926-041316-SAG-108	GW-013926-101916-DJB-105	GW-020911-DJB-209	GW-
	Sample Date:	2/2/2011	10/11/2011	4/13/2016	10/19/2016	2/9/2011	
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0	1.9	5.0 U	
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	5.0 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,4-Dioxane	ug/L	-	-	150 U	58	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	50 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	17 J	11 J	24	20 U	50 U	
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	
cis-1,2-Dichloroethene	ug/L	16	15	6.2	17	3.5 J	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Tetrachloroethene	ug/L	14	1.8 J	1.0 U	1.0 U	5.0 U	
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.4	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

						Shallow Bedrock Unit	
	Sample Location:	MW-7A	MW-7A	MW-7A	MW-7A	MW-10A	
	Sample ID:	GW-020211-EAH-001	GW-101111-SAG-005	GW-013926-041316-SAG-108	GW-013926-101916-DJB-105	GW-020911-DJB-209	GW-
	Sample Date:	2/2/2011	10/11/2011	4/13/2016	10/19/2016	2/9/2011	
Parameters	**Units**						
Metals							
Arsenic	mg/L	-	0.0500 U	0.000882 J	0.000689 J	50 U	
Arsenic (dissolved)	mg/L	-	-	-	--	50 U	
Barium	mg/L	-	0.0154 J	0.0664	0.0768	17.1 J	
Barium (dissolved)	mg/L	-	-	-	--	11.6 J	
Cadmium	mg/L	-	0.0050 U	0.000474 J	0.000195 J	5 U	
Cadmium (dissolved)	mg/L	-	-	-	--	5 U	
Chromium	mg/L	-	0.0011 J	0.005 U	0.005 U	10 U	
Chromium Total (dissolved)	mg/L	-	-	-	--	10 U	
Copper	mg/L	-	0.0045 J	0.000683 J	0.00138 J	10 U	
Copper (dissolved)	mg/L	-	-	-	--	10 U	
Iron	mg/L	-	0.100 U	0.231	0.174	103	
Iron (dissolved)	mg/L	-	-	--	--	100 U	
Lead	mg/L	-	0.0100 U	0.000423 J	0.001 U	9.6 J	
Lead (dissolved)	mg/L	-	-	-	--	10 U	
Manganese	mg/L	-	0.0455	--	0.14	118	
Manganese (dissolved)	mg/L	-	-	-	--	2.6 J	
Selenium	mg/L	-	0.0200 U	0.005 U	0.005 U	20 U	
Selenium (dissolved)	mg/L	-	-		--	20 U	
Dissolved Gas							
Ethane	ug/L	-	9 U	9.0 U	9.0 U	9 U	
Ethene	ug/L	-	7 U	5.4 J	7.0 U	7 U	
Methane	ug/L	-	33	1800	330	4 U	
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	-	365	138	150	73700	
Ammonia	mg/L	-	0.067 J	1.57	1.59	--	
Chloride	mg/L	-	15	7.7	9.1	1400	
Ferrous iron	mg/L	-	-	-	--	100 UJ	
Nitrate (as N)	mg/L	-	2.5 U	0.031 J	0.033 J	99 J	
Orthophosphate	mg/L	-	0.0151 U	0.159	0.234	--	
Sulfate	mg/L	-	22	5.9	7.2	10000	
Total organic carbon (TOC)	mg/L	-	25.6	4.77	4.99	577 J	
Field Parameters							
pH	S.U	11.69	11.6	7.10	6.72	7.25	
DO	mg/L	2.73	3.26	0.0	0.58	5.36	
ORP	mv	17	-5	-80	-144	215	

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
Sample Location:		*MW-13*	*MW-13*	MW-13	*MW-41*	*MW-41*	*MW-41*
Sample ID:		*GW-101211-DJB-104*	*GW-013926-041216-SAG-103*	GW-013926-101816-DJB-104	*GW-021111-DJB-212*	*GW-101211-DJB-103*	*GW-013926-041216-*
Sample Date:		*10/12/2011*	*4/12/2016*	10/18/2016	*2/11/2011*	*10/12/2011*	*4/12/2016*
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.6 J	1.0 U	1.0 U	3.5 J	5.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	11	4.2	2.9	5.2	3.1 J	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1-Dichloroethane	ug/L	30	2.3	4.9	1.8 J	5.0 U	1.0 U
1,1-Dichloroethene	ug/L	28	1.8 J	4.3	6.1	5.0 U	1.4 J
1,2,4-Trichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	0.020 U	0.020 U	5.0 U	5.0 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.9 J	1.0 U	1.0 U	5.9	2.6 J	1.8
1,2-Dichloropropane	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	0.99 J	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
1,4-Dioxane	ug/L	-	150 U	42	-	-	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	10 U	10 U	50 U	50 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	20 U	20 U	50 U	50 U	20 U
Benzene	ug/L	7.0	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Bromoform	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	2.0 U
Chlorobenzene	ug/L	0.55 J	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Chloroethane	ug/L	10 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Chloroform (Trichloromethane)	ug/L	7.9	1.4	1.6	5.9	1.4 J	1.8
Chloromethane (Methyl chloride)	ug/L	10 U	1.0 U	1.0 U	10 U	10 U	1.0 U
cis-1,2-Dichloroethene	ug/L	350	69	93	37	9.4	2.5
cis-1,3-Dichloropropene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Methylene chloride	ug/L	2.2 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U
Tetrachloroethene	ug/L	75	27	46	20	4.4 J	5.7
Toluene	ug/L	14	1.0 U	1.0 U	1.0 J	12	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	2.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
	Sample Location:	***MW-13***	***MW-13***	**MW-13**	***MW-41***	***MW-41***	***MW-41***
	Sample ID:	***GW-101211-DJB-104***	***GW-013926-041216-SAG-103***	GW-013926-101816-DJB-104	***GW-021111-DJB-212***	***GW-101211-DJB-103***	***GW-013926-041216-***
	Sample Date:	***10/12/2011***	***4/12/2016***	10/18/2016	***2/11/2011***	***10/12/2011***	***4/12/2016***
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.0500 U	0.000371 J	0.005 U	0.0500 U	0.0500 U	0.000424 J
Arsenic (dissolved)	mg/L	-	-	--	0.0500 U	-	-
Barium	mg/L	0.104	0.0615	0.0735	0.243	0.363	0.176
Barium (dissolved)	mg/L	-	-	--	0.233	-	-
Cadmium	mg/L	0.0050 U	0.0007 U	0.0007 U	0.0050 U	0.0050 U	0.000236 J
Cadmium (dissolved)	mg/L	-	-	--	0.0050 U	-	-
Chromium	mg/L	0.0100 U	0.005 U	0.005 U	0.0011 J	0.0165	0.00143 J
Chromium Total (dissolved)	mg/L	-	-	--	0.0100 U	-	-
Copper	mg/L	0.0100 U	0.002 U	0.000768 J	0.0014 J	0.0169	0.00104 J
Copper (dissolved)	mg/L	-	-	--	0.0100 U	-	-
Iron	mg/L	0.174 U	0.1 U	0.1 U	0.538	11.4	0.508
Iron (dissolved)	mg/L	-	--	--	0.100 U	-	--
Lead	mg/L	0.0074 J	0.000207 J	0.001 U	0.0100 U	0.0034 J	0.000799 J
Lead (dissolved)	mg/L	-	-	--	0.0100 U	-	-
Manganese	mg/L	0.0679	--	0.0329	0.147	0.191	--
Manganese (dissolved)	mg/L	-	-	--	0.141	-	-
Selenium	mg/L	0.0200 U	0.000981 J	0.005 U	0.0200 U	0.0200 U	0.000406 J
Selenium (dissolved)	mg/L	-		--	0.0200 U	-	
Dissolved Gas							
Ethane	ug/L	9 U	9.0 U	9.0 U	9 U	9 U	9.0 U
Ethene	ug/L	7 U	7.0 U	7.0 U	7 U	7 U	7.0 U
Methane	ug/L	210	1.3 J	4.0 U	4 U	4 U	4.0 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	45.1	25.0	23.0	10.0 U	10.0 U	5.00
Ammonia	mg/L	0.036 J	0.020 U	0.020 U	-	0.025 J	0.020 U
Chloride	mg/L	18	9.6 J	11	22	15	12 J
Ferrous iron	mg/L	-	-	--	0.100 U	-	-
Nitrate (as N)	mg/L	0.41	0.89	0.67	3.2	2.6	1.2
Orthophosphate	mg/L	0.214	0.0815	0.138	-	0.0976	0.182
Sulfate	mg/L	2.3	0.81 J	0.57 J	15	15	17
Total organic carbon (TOC)	mg/L	2.62	11.2	1.00 U	2.92 U	4.36	10.7
Field Parameters							
pH	S.U	6.3	4.97	5.83	4.9	5.8	4.55
DO	mg/L	0.6	0.24	0.88	6.11	8.6	1.60
ORP	mv	142	350	291	320	272	402

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Bed Rock Unit				Bed Rock unit	
	Sample Location:	MW-4A	MW-4A	MW-4A	MW-4A	MW-11A	GW-1
	Sample ID:	GW-020911-DJB-207	GW-101211-DJB-106	GW-013926-041416-SAG-109	GW-013926-101916-DJB-108	GW-021011-EAH-021	
	Sample Date:	2/9/2011	10/12/2011	4/14/2016	10/19/2016	2/10/2011	
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	33	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.3	1.3	5.3	
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.4 J	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	5.0 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.5 J	
1,4-Dioxane	ug/L	-	-	150 U	2.6	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	50 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	50 U	50 U	20 U	20 U	50 U	
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	0.65 J	
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	0.71 J	
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	2.3 J	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.1 J	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	
cis-1,2-Dichloroethene	ug/L	3.3 J	6.1	11	14	160	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	10 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	
Tetrachloroethene	ug/L	5.0 U	2.0 J	8.4	9.4	38	
Toluene	ug/L	9.1	8.4	1.0 U	1.0 U	5.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Bed Rock Unit				Bed Rock unit	
	Sample Location:	***MW-4A***	***MW-4A***	***MW-4A***	**MW-4A**	***MW-11A***	***GW-1***
	Sample ID:	***GW-020911-DJB-207***	***GW-101211-DJB-106***	***GW-013926-041416-SAG-109***	**GW-013926-101916-DJB-108**	***GW-021011-EAH-021***	
	Sample Date:	***2/9/2011***	***10/12/2011***	***4/14/2016***	**10/19/2016**	***2/10/2011***	
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.00029 J	0.000146 J	0.0500 U	
Arsenic (dissolved)	mg/L	0.0500 U	-	-	--	0.0500 U	
Barium	mg/L	0.0180 J	0.0154 J	0.0165	0.0154	0.184	
Barium (dissolved)	mg/L	0.0162 J	-	-	--	0.171	
Cadmium	mg/L	0.0050 U	0.0050 U	0.0007 U	0.0007 U	0.0050 U	
Cadmium (dissolved)	mg/L	0.0050 U	-	-	--	0.0050 U	
Chromium	mg/L	0.0100 U	0.0100 U	0.005 U	0.005 U	0.0008 J	
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	--	0.0100 U	
Copper	mg/L	0.0015 J	0.0100 U	0.002 U	0.000776 J	0.0100 U	
Copper (dissolved)	mg/L	0.0146 J	-	-	--	0.0100 U	
Iron	mg/L	0.330	0.319 U	0.1 U	0.1 U	7.62	
Iron (dissolved)	mg/L	0.0562 J	-	--	--	5.25	
Lead	mg/L	0.108	0.0146	0.00106	0.001 U	0.0100 U	
Lead (dissolved)	mg/L	0.0195	-	-	--	0.0100 U	
Manganese	mg/L	0.0073 J	0.0111 J	--	0.005 U	5.24	
Manganese (dissolved)	mg/L	0.0055 J	-	-	--	4.97	
Selenium	mg/L	0.0200 U	0.0200 U	0.000665 J	0.005 U	0.0200 U	
Selenium (dissolved)	mg/L	0.0200 U	-		--	0.0200 U	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9 U	
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7 U	
Methane	ug/L	4 U	530	4.0 U	4.0 U	200	
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	36.8	32.9	33.0	31.0	49.4	
Ammonia	mg/L	-	0.302	0.020 U	0.020 U	0.174 J	
Chloride	mg/L	1.5	1.3	1.8	1.4	18	
Ferrous iron	mg/L	0.100 UJ	-	-	--	5.50 J	
Nitrate (as N)	mg/L	0.25 U	0.25 U	0.11 J	0.059 J	0.25 U	
Orthophosphate	mg/L	-	0.0537	0.0154	0.0193	-	
Sulfate	mg/L	9.3	7.0	7.3	8.2	6.6	
Total organic carbon (TOC)	mg/L	1.00 U	2.49	1.64	0.550 J	0.482 J	
Field Parameters							
pH	S.U	6.12	7.02	6.65		5.43	
DO	mg/L	0.14	0.61	6.36		0	
ORP	mv	203	-95	252		249	

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value

Attachments

Attachment A
Well Purging Forms
October 2016 Monitoring Event

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 19, 2016
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-3**
Measured Well Depth (ft): 50.09
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.28

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 45
Initial Depth to Water (ft): 42.08
Total Volume Purged (gal): 0.87

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
10:45	110	42.22	0.14	18.84	0.299	72.9	0.00	5.54	10
10:50	110	42.28	0.20	18.88	0.299	54.0	0.00	5.55	10
10:55	110	42.29	0.21	18.92	0.296	45.2	0.00	5.54	10
11:00	110	42.29	0.21	18.98	0.292	42.2	0.00	5.53	10
11:05	110	42.29	0.21	19.04	0.291	28.8	0.00	5.54	10
11:10	110	42.29	0.21	19.12	0.289	27.0	0.00	5.54	10
11:15	110	42.29	0.21	19.17	0.287	26.8	0.00	5.53	10
	Sample Time		11:30						
	Sample ID		**GW-013926-0101916-DJB-107**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 19, 2016
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-4**
Measured Well Depth (ft): 22.62
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.14

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
Depth to Pump Intake (ft)[1]: 19
Initial Depth to Water (ft): 15.51
Total Volume Purged (gal): 0.82

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
13:45	70	15.57	0.06	26.39	0.208	101	0.00	5.54	25
13:50	70	15.59	0.08	25.64	0.204	58.4	0.00	5.56	22
13:55	70	15.60	0.09	25.45	0.199	39.8	0.00	5.53	22
14:00	70	15.61	0.10	25.94	0.196	30.4	0.00	5.53	22
14:05	70	15.62	0.11	26.69	0.195	28.2	0.00	5.55	23
14:10	70	15.64	0.13	26.42	0.198	29.3	0.00	5.51	23
14:15	70	-	-	26.37	0.197	27.4	0.00	5.53	23
	Sample Time		14:25						
	Sample ID		**GW-013926-101916-SAG-012**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 19, 2016
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-4A**
Measured Well Depth (ft): 67.35
Screen Length (ft): 10
Well Diameter, D (in): 4
Total Volume in Well (gal): 35.33

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
Depth to Pump Intake (ft)[1]: 55
Initial Depth to Water (ft): 13.82
Total Volume Purged (gal): -

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
14:00	-	14.06	0.24	22.47	0.090	23.4	0.00	5.85	22
14:05	-	14.06	0.24	22.03	0.090	12.0	0.00	5.93	21
14:10	-	14.06	0.24	21.79	0.090	9.09	0.00	5.94	21
14:15	-	14.06	0.24	21.48	0.089	8.14	0.00	5.96	21
	Sample Time		14:45						
	Sample ID		**GW-013926-101916-DJB-108**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

MULTI VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: October 19, 2016

Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-7A**

Measured Well Depth (ft): 75.28

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 7.90

Purging/Sampling Data:

Purging/Sampling Device: Bladder/Bailer

Depth to Pump Intake (ft)[1]: 60

Initial Depth to Water (ft): 26.33

Total Volume Purged (gal): 8.5

Volume (gallons)	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
8.00	-	-	-	19.00	0.341	30.3	0.58	6.72	-14
8.50	DRY	-	-	-	-	-	-	-	-
	Sample Time		12:00						
	Sample ID		**GW-013926-101916-DJB-105**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min)

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 19, 2016
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-10A**
Measured Well Depth (ft): 55.1
Screen Length (ft): 10
Well Diameter, D (in): 4
Total Volume in Well (gal): 29.55

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic
Depth to Pump Intake (ft)[1]: 49
Initial Depth to Water (ft): 10.32
Total Volume Purged (gal): -

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4] :	***±3 %***	***±0.005 or 0.01 [3]***	***±10 %***	***±10 %***	***±0.1 Units***	***±10 mV***
15:00	-	10.53	0.21	19.00	0.186	13.4	3.94	6.96	-223
15:05	-	10.60	0.28	18.90	0.186	1.98	0.00	6.98	-225
15:10	-	10.61	0.29	18.91	0.186	0.43	0.00	6.99	-227
15:15	-	10.61	0.29	18.91	0.186	0.96	0.00	7.01	-230
	Sample Time		15:45						
	Sample ID		**GW-013926-101916-DJB-109**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: October 19, 2016

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-11**

Measured Well Depth (ft): 51.9

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 2.32

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 47

Initial Depth to Water (ft): 37.42

Total Volume Purged (gal): 0.62

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
9:25	70	37.49	0.07	17.23	0.052	349	3.31	5.60	28
9:30	50	37.52	0.10	17.08	0.051	146	2.39	5.50	30
9:35	50	37.54	0.12	17.07	0.049	106	2.22	5.48	30
9:40	50	37.56	0.14	17.10	0.048	80.1	2.17	5.48	31
9:45	50	37.58	0.16	17.10	0.046	61.7	2.23	5.47	31
9:50	50	37.59	0.17	17.12	0.046	43.6	2.25	5.48	32
9:55	50	37.61	0.19	17.14	0.046	38.0	2.27	5.49	32
10:00	50	37.63	0.21	17.19	0.045	29.4	2.23	5.48	32
10:05	50	37.65	0.23	17.24	0.045	28.0	2.19	5.49	33
10:10	50	37.68	0.26	17.28	0.045	26.9	2.16	5.49	33
	Sample Time		10:20						
	Sample ID		**GW-013926-101916-SAG-010**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 19, 2016
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-11A**
Measured Well Depth (ft): 130
Screen Length (ft): 10
Well Diameter, D (in): 4
Total Volume in Well (gal): 65.49

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 115
Initial Depth to Water (ft): 30.77
Total Volume Purged (gal): 0.83

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
8:05	70	30.79	0.02	19.29	0.105	249	0.00	5.78	25
8:10	70	30.79	0.02	18.36	0.106	108	0.00	5.73	25
8:15	70	30.79	0.02	18.04	0.106	84.5	0.00	5.72	25
8:20	70	30.79	0.02	17.75	0.106	68.1	0.00	5.72	26
8:25	70	30.79	0.02	17.63	0.107	57.6	0.00	5.72	26
8:30	70	30.79	0.02	17.40	0.108	45.4	0.00	5.72	26
8:35	70	30.79	0.02	17.30	0.108	40.7	0.00	5.72	27
8:40	70	30.79	0.02	17.17	0.108	40.3	0.00	5.71	27
8:45	70	30.79	0.02	17.16	0.109	38.9	0.00	5.72	27
8:50	70	30.79	0.02	17.00	0.109	39.3	0.00	5.71	27
	Sample Time		9:00						
	Sample ID		**GW-013926-101916-SAG-009**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissloved gases			
			2 x 40 ml unpres.			EDB			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2016
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-12**
Measured Well Depth (ft): 39.93
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.36

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 35.5
Initial Depth to Water (ft): 31.42
Total Volume Purged (gal): 0.65

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
14:40	70	31.42	0.00	22.29	0.086	170	0.47	5.20	32
14:45	70	31.42	0.00	21.70	0.088	156	0.12	5.23	32
14:50	70	31.42	0.00	21.34	0.089	141	0.03	5.24	32
14:55	70	31.42	0.00	21.23	0.091	92.3	0.00	5.23	32
15:00	70	31.42	0.00	21.16	0.093	76.1	0.00	5.23	32
15:05	70	31.42	0.00	21.03	0.092	49.7	0.00	5.24	32
15:10	70	31.42	0.00	20.88	0.092	51.5	0.00	5.24	32
15:15	70	31.42	0.00	20.79	0.093	53.7	0.00	5.24	32
	Sample Time		15:25, 15:45						
	Sample ID		GW-013926-101816-SAG-007, -008 (DUPLICATE						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2016
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-13**
Measured Well Depth (ft): 92
Screen Length (ft): 10
Well Diameter, D (in): 4
Total Volume in Well (gal): 5.18

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 77
Initial Depth to Water (ft): 59.60
Total Volume Purged (gal): 1.06

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
14:35	200	59.85	0.25	18.62	0.101	15.9	2.50	5.85	25
14:40	200	59.85	0.25	18.53	0.101	3.31	1.30	5.85	26
14:45	200	59.86	0.26	18.48	0.101	1.98	1.00	5.86	27
14:50	200	59.86	0.26	18.38	0.101	2.77	0.95	5.86	28
14:55	200	59.86	0.26	18.31	0.101	1.97	0.88	5.83	29
	Sample Time		15:00						
	Sample ID		**GW-013926-101816-DJB-104**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

Notes:

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2016
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-14**
Measured Well Depth (ft): 54.87
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.85

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 50
Initial Depth to Water (ft): 43.28
Total Volume Purged (gal): 0.66

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
11:25	100	43.31	0.03	24.14	0.083	296	4.70	5.68	25
11:30	100	43.31	0.03	24.19	0.082	264	4.65	5.60	25
11:35	100	43.31	0.03	24.37	0.083	183	4.73	5.60	25
11:40	100	43.31	0.03	24.73	0.085	122	4.67	5.69	25
11:45	100	43.31	0.03	24.80	0.085	128	4.63	5.68	25
11:50	100	43.31	0.03	24.64	0.084	104	4.92	5.68	25
	Sample Time		12:30						
	Sample ID		**GW-013926-101816-DJB-102**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

Notes:

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2016
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-27**
Measured Well Depth (ft): 52.21
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.90

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 47
Initial Depth to Water (ft): 34.11
Total Volume Purged (gal): 1.02

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
10:25	70	34.17	0.06	22.08	0.200	682	8.14	5.98	30
10:30	70	34.18	0.07	20.55	0.205	515	7.65	5.95	30
10:35	70	34.19	0.08	20.29	0.207	427	6.96	5.92	30
10:40	70	34.21	0.10	20.05	0.207	388	6.80	5.89	31
10:45	70	34.23	0.12	19.91	0.208	334	6.51	5.83	31
10:50	70	34.24	0.13	19.77	0.208	296	6.22	5.88	31
10:55	70	34.25	0.14	19.77	0.207	288	6.12	5.89	31
11:00	70	34.25	0.14	19.80	0.207	256	5.89	5.91	31
11:05	70	34.26	0.15	19.93	0.207	236	5.56	5.94	31
11:10	70	34.27	0.16	19.87	0.207	246	5.50	5.94	31
11:15	70	34.28	0.17	19.83	0.207	235	5.48	5.93	31
11:20	70	34.29	0.18	19.94	0.207	237	5.45	5.95	30
	Sample Time		11:30						
	Sample ID		**GW-013926-101816-SAG-003**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2016
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-28**
Measured Well Depth (ft): 52.35
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.88

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 47
Initial Depth to Water (ft): 34.36
Total Volume Purged (gal): 0.78

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
7:55	100	34.44	0.08	17.91	0.283	340	5.19	5.24	25
8:00	70	34.46	0.10	17.07	0.254	284	3.12	6.03	26
8:05	70	34.48	0.12	17.02	0.255	263	2.86	6.07	27
8:10	70	34.49	0.13	16.99	0.255	255	2.75	6.11	28
8:15	70	34.50	0.14	16.98	0.259	250	2.57	6.12	28
8:20	70	34.52	0.16	16.98	0.260	227	2.54	6.16	29
8:25	70	34.52	0.16	17.01	0.262	222	2.53	6.14	29
8:30	70	34.53	0.17	17.10	0.264	218	2.56	6.16	29
8:35	70	34.54	0.18	17.22	0.264	216	2.59	6.16	30
	Sample Time		8:45						
	Sample ID		**GW-013926-101816-SAG-001**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2016
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-32**
Measured Well Depth (ft): 52.74
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.83

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 47.5
Initial Depth to Water (ft): 35.04
Total Volume Purged (gal): 0.87

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
9:10	100	35.18	0.14	18.55	0.173	341	5.20	5.74	30
9:15	70	35.22	0.18	18.82	0.171	330	4.48	5.73	29
9:20	70	35.25	0.21	19.07	0.169	274	4.11	5.72	29
9:25	70	35.27	0.23	19.16	0.169	263	3.93	5.73	29
9:30	70	35.28	0.24	19.39	0.169	256	3.57	5.71	29
9:35	70	35.29	0.25	19.44	0.169	258	3.47	5.71	29
9:40	70	35.31	0.27	19.57	0.169	260	3.23	5.70	29
9:45	70	35.33	0.29	19.61	0.169	253	3.18	5.72	29
9:50	70	35.34	0.30	19.70	0.169	256	3.16	5.71	29
9:55	70	35.36	0.32	19.85	0.168	253	3.14	5.70	29
	Sample Time		10:05						
	Sample ID		**GW-013926-101816-SAG-002**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			
			2 x 40 ml unpres.			EDB			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 19, 2016
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-35**
Measured Well Depth (ft): 54.6
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.55

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 49.5
Initial Depth to Water (ft): 38.68
Total Volume Purged (gal): 0.91

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
11:00	70	38.77	0.09	17.89	0.128	80.2	0.00	4.95	27
11:05	70	38.78	0.10	17.95	0.129	37.2	0.00	4.93	27
11:10	70	38.80	0.12	17.97	0.129	39.5	0.00	4.92	27
11:15	70	38.82	0.14	18.04	0.130	34.2	0.00	4.93	27
11:20	70	38.84	0.16	18.14	0.130	30.5	0.00	4.92	27
11:25	70	38.86	0.18	18.22	0.130	33.6	0.00	4.94	27
11:30	70	38.88	0.20	18.25	0.130	31.2	0.00	4.95	27
11:35	70	38.91	0.23	18.34	0.131	34.0	0.00	4.96	27
	Sample Time		11:45						
	Sample ID		**GW-013926-101916-SAG-011**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2106
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-39**
Measured Well Depth (ft): 56.93
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 3.28

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 52
Initial Depth to Water (ft): 36.43
Total Volume Purged (gal): 0.91

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
13:25	70	36.47	0.04	23.26	0.093	433	4.93	4.85	34
13:30	70	36.50	0.07	23.00	0.092	409	4.85	4.92	32
13:35	70	36.51	0.08	22.81	0.090	249	4.87	4.87	32
13:40	70	36.51	0.08	22.74	0.089	228	4.28	4.87	32
13:45	70	36.51	0.08	22.86	0.090	241	4.07	4.89	31
13:50	70	36.52	0.09	23.09	0.091	271	4.03	4.87	32
13:55	70	36.53	0.10	23.20	0.093	262	3.99	4.88	31
14:00	70	36.53	0.10	23.73	0.096	267	3.98	4.90	31
	Sample Time		14:10						
	Sample ID		**GW-013926-101816-SAG-006**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2016
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-40**
Measured Well Depth (ft): 56.85
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.46

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 51
Initial Depth to Water (ft): 41.45
Total Volume Purged (gal): 0.83

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10*
12:00	70	41.51	0.06	23.13	0.108	0	3.30	5.10	34
12:05	70	41.52	0.07	22.45	0.111	71.1	1.74	4.95	35
12:10	70	41.52	0.07	22.27	0.110	41.0	1.62	4.88	36
12:15	70	41.53	0.08	22.00	0.106	27.9	1.66	4.95	36
12:20	70	41.53	0.08	21.90	0.098	17.0	1.91	4.93	36
12:25	70	41.54	0.09	21.87	0.094	18.4	2.13	4.93	37
12:30	70	41.54	0.09	21.82	0.091	16.1	2.36	4.93	37
12:35	70	41.54	0.09	21.91	0.088	20.9	2.42	4.91	37
12:40	70	41.55	0.10	21.92	0.087	19.5	2.55	4.92	37
12:45	70	41.55	0.10	22.19	0.087	20.5	2.49	4.93	37
	Sample Time		12:55 and 13:05						
	Sample ID		**GW-013926-101816-SAG-004, -005 (DUPLICATE**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Dissolved Metals			
			1 x 250 ml unpres.			Ortho Phosphate			
			2 x 40 ml w/ HCl			VOCs			
			2 x 40 ml unpres.			EDB			

Notes:

MULTI VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2016
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-41**
Measured Well Depth (ft): 93.6
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 3.37

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 90.5
Initial Depth to Water (ft): 72.55
Total Volume Purged (gal): 10.5

Volume (gallons)	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	***±3 %***	***±0.005 or 0.01 [3]***	***±10 %***	***±10 %***	***±0.1 Units***	***±10 mV***
8:35 began pumping 100 ml/min									
3.50	100	74.33	1.78	17.36	0.121	45.6	5.24	5.10	282
7.00	100	74.45	1.90	17.41	0.118	22.8	5.14	5.12	282
10.50	100	74.53	1.98	17.51	0.114	17.4	5.01	5.14	283
	Sample Time		9:45						
	Sample ID		**GW-013926-101816-DJB-101**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 ml /min)

MULTI VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 19, 2016
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-42**
Measured Well Depth (ft): 66.94
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 3.75

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 62
Initial Depth to Water (ft): 43.48
Total Volume Purged (gal): 11.25

Volume (gallons)	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	***±3 %***	***±0.005 or 0.01 [3]***	***±10 %***	***±10 %***	***±0.1 Units***	***±10***
8:50 began pumping 350 ml/min									
3.75	350	56.38	12.90	16.76	0.103	44.1	0.69	5.97	9
7.50	350	57.42	13.94	16.83	0.122	30.0	0.19	5.98	9
11.25	350	58.06	14.58	16.89	0.146	27.1	0.00	5.97	10
	Sample Time		10:15						
	Sample ID		**GW-013926-101916-DJB-106**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 ml/min)

MULTI VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: October 18, 2016
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **TW-2**
Measured Well Depth (ft): 61.72
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.41

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 56.5
Initial Depth to Water (ft): 46.64
Total Volume Purged (gal): 7.5

Volume (gallons)	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*OR (m*
			Precision Required [4] :	***±3 %***	***±0.005 or 0.01 [3]***	***±10 %***	***±10 %***	***±0.1 Units***	***±10***
12:25 began pumping 125 ml/min									
2.50	125	54.76	8.12	19.24	0.084	23.8	1.23	6.57	17
5.00	125	55.02	8.38	18.72	0.084	18.8	1.13	6.56	17
7.50	125	55.06	8.42	18.62	0.083	22.3	1.00	6.56	17
	Sample Time		13:35						
	Sample ID		**GW-013926-101816-DJB-103**						
			Containers and preservatives			***Analysis***			
			1 x 500 ml w/ H2SO4			Ammonia			
			1 x 500 ml unpres.			Sulfate, Nitrate, Chloride			
			1 x 250 ml w/ HNO3			TAL Metals			
			1 x 250 ml unpres.			Alkalinity			
			1 x 250 ml unpres.			Ortho Phosphate			
			1 x 250 ml w/ H2SO4			TOC			
			4 x 40 ml w/ HCl			VOCs and dissolved gases			
			2 x 40 ml unpres.			EDB			

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm

Memorandum

November 9, 2016

To:	Terefe Mazengia	Ref. No.:	013926
From:	Paul McMahon/adh/28	Tel:	716-205-1970

Subject: **Analytical Results and Reduced Validation**
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in support of the semiannual groundwater sampling program at the Greer, South Carolina Site during October 2016. Samples were submitted to Analytical Environmental Services, Inc. (AES) located in Atlanta, Georgia. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodologies is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS), and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", United States Environmental Protection Agency (USEPA) 540-R-10-011, January 2010

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

Attachment B
Memorandum &
Groundwater Analytical Reports

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Most method blank results were non-detect. Low levels of metals and chloride were detected in some method blanks. All investigative sample results that were similar to the blank concentrations were qualified as non-detect (see Table 4).

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) and ethylene dibromide (EDB) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All recoveries were acceptable except for one high EDB surrogate recovery. The associated sample result was non-detect and was not impacted by the indicated high bias.

5. Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

5.1 Organic Analyses

The LCS/LCSD contained all compounds of interest. All LCS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

5.2 Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with known concentrations of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

Non-detect sample results associated with high MS/MSD recoveries or RPDs were not qualified. Non-detect data would not be impacted by the indicated high bias/variability.

MS/MSD analyses were performed as specified in Table 1. The laboratory performed additional site-specific MS/MSD analyses internally.

6.1 Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. Most percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision. Low MS/MSD recoveries were reported for one VOC, and the associated sample result was qualified as estimated (see Table 5).

6.2 Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

7. Duplicate Sample Analyses – Inorganic Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

8. Field QA/QC Samples

The field QA/QC consisted of three trip blank samples and two field duplicate sample sets.

8.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, three trip blanks were submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

8.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, two field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

9. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

Some tetrachloroethene and 1,4-dioxane results exceeded the calibration range of the instrument. There were no additional vials available to dilute and analyze the samples. The associated sample results have been qualified as estimated (see Table 6).

10. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Sample Identification	Location	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters												Comments
				TCL VOCs + TMBs	TCL VOCs	1,4-Dioxane	Dissolved Gases	EDB	Ammonia	Alkalinity	Metals	Chloride	Nitrate, Sulfate	Orthophosphate	TOC	
GW-013926-101816-SAG-001	MW-28	10/18/2016	8:45		X	X		X	X		X		X	X		
GW-013926-101816-SAG-002	MW-32	10/18/2016	10:05		X	X		X	X		X		X	X		
GW-013926-101816-SAG-003	MW-27	10/18/2016	11:30	X	X	X		X	X		X		X	X		
GW-013926-101816-SAG-004	MW-40	10/18/2016	12:55		X	X		X	X		X		X	X		
GW-013926-101816-SAG-005	MW-40	10/18/2016	13:05		X	X		X	X		X		X	X		Duplicate of GW-013926-101816-SAG-004
GW-013926-101816-SAG-006	MW-39	10/18/2016	14:10		X	X			X		X		X	X		
GW-013926-101816-SAG-007	MW-12	10/18/2016	15:25	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101916-SAG-008	MW-12	10/18/2016	15:45	X		X	X	X	X	X	X	X	X	X	X	Duplicate of GW-013926-101816-SAG-007
GW-013926-101916-SAG-009	MW-11A	10/18/2016	9:00	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101916-SAG-010	MW-11	10/18/2016	10:20	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101916-SAG-011	MW-25	10/18/2016	11;45	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101916-SAG-012	MW-4	10/18/2016	14:25	X		X	X	X	X	X	X	X	X	X	X	MS/MSD/DUP
GW-013926-101816-DJB-101	MW-41	10/18/2016	9;45	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101816-DJB-102	MW-14	10/18/2016	12:30	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101816-DJB-103	TW-2	10/18/2016	13:35	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101816-DJB-104	MW-13	10/18/2016	15:00	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101816-DJB-105	MW-7A	10/19/2016	12:00	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101816-DJB-106	MW-42	10/19/2016	10:15	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101816-DJB-107	MW-3	10/19/2016	11:30	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101816-DJB-108	MW-4A	10/19/2016	14:45	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101816-DJB-109	MW-10A	10/19/2016	15:45	X		X	X	X	X	X	X	X	X	X	X	

Notes:

EDB - Ethylene Dibromide
TCL - Target Compound List
TMBs - Trimethylbenzenes
TOC - Total Organic Carbon
VOCs - Volatile Organic Compounds
DUP - Laboratory Duplicate
MS/MSD - Matrix Spike/Matrix Spike Duplicate

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-3	MW-4	MW-4A	MW-7A	MW-10A
Sample Name:		GW-013926-101916-DJB-107	GW-013926-101916-SAG-012	GW-013926-101916-DJB-108	GW-013926-101916-DJB-105	GW-013926-101916-DJB-109
Sample Date:		10/19/2016	10/19/2016	10/19/2016	10/19/2016	10/19/2016
Parameters	**Unit**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	53	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	14	3.8 J	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	4.4	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	15	15	1.3	1.9	1.0 U
1,1-Dichloroethene	µg/L	6.7	8.5	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	2.7	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	4.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	3.2	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	2.5	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	3.0	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	340 J	140	2.6	58	2.0 J
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U	20 U
Benzene	µg/L	3.4	4.1	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	11	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	3.2	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	5.1	1.9	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	320	130	14	17	5.1
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-3	MW-4	MW-4A	MW-7A	MW-10A
Sample Name:		GW-013926-101916-DJB-107	GW-013926-101916-SAG-012	GW-013926-101916-DJB-108	GW-013926-101916-DJB-105	GW-013926-101916-DJB-109
Sample Date:		10/19/2016	10/19/2016	10/19/2016	10/19/2016	10/19/2016
Parameters	**Unit**					
Volatile Organic Compounds - Continued						
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	170	36	9.4	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	4.8	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	42	120	5.8	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	44	1.0 U	1.0 U	4.3	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals						
Mercury	mg/L	--	--	--	--	--
Aluminum	µg/L	--	--	--	--	--
Antimony	µg/L	--	--	--	--	--
Arsenic	µg/L	1.92 J	0.187 J	0.146 J	0.689 J	1.70 J
Barium	µg/L	382	196	15.4	76.8	29.2
Beryllium	µg/L	--	--	--	--	--
Cadmium	µg/L	0.570 J	0.389 J	0.700 U	0.195 J	0.700 U
Calcium	µg/L	--	--	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Cobalt	µg/L	--	--	--	--	--
Copper	µg/L	0.906 J	1.03 J	0.776 J	1.38 J	0.669 J
Iron	µg/L	4790	226	100 U	174	210
Iron (dissolved)	µg/L	--	--	--	--	--
Lead	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	1.56
Magnesium	µg/L	--	--	--	--	--
Manganese	µg/L	13800	292	5.00 U	140	778
Manganese (dissolved)	µg/L	--	--	--	--	--
Nickel	µg/L	--	--	--	--	--
Potassium	µg/L	--	--	--	--	--
Selenium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Silver	µg/L	--	--	--	--	--
Sodium	µg/L	--	--	--	--	--
Thallium	µg/L	--	--	--	--	--
Vanadium	µg/L	--	--	--	--	--
Zinc	µg/L	--	--	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-3	MW-4	MW-4A	MW-7A	MW-10A
Sample Name:		GW-013926-101916-DJB-107	GW-013926-101916-SAG-012	GW-013926-101916-DJB-108	GW-013926-101916-DJB-105	GW-013926-101916-DJB-109
Sample Date:		10/19/2016	10/19/2016	10/19/2016	10/19/2016	10/19/2016
Parameters	**Unit**					
Dissolved Gases						
Ethane	µg/L	8.7 J	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	µg/L	7.2	7.0 U	7.0 U	7.0 U	7.0 U
Methane	µg/L	580	23	4.0 U	330	750
General Chemistry						
Alkalinity, total (as CaCO3)	mg/L	37.0	43.0	31.0	150	75.0
Ammonia	mg/L	0.071	0.088	0.020 U	1.59	2.44
Chloride	mg/L	47	21	1.4	9.1	1.4
Nitrate (as N)	mg/L	0.33	1.1	0.059 J	0.033 J	0.25 U
Orthophosphate	mg/L	0.00804 J	0.0354	0.0193	0.234	0.254
Sulfate	mg/L	8.3	8.2	8.2	7.2	4.0
Total organic carbon (TOC)	mg/L	7.80	1.00 U	0.550 J	4.99	1.62
Fumigant						
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-11	MW-11A	MW-12	MW-12
Sample Name:		GW-013926-101916-SAG-010	GW-013926-101916-SAG-009	GW-013926-101816-SAG-007	GW-013926-101816-SAG-008
Sample Date:		10/19/2016	10/19/2016	10/18/2016	10/18/2016
					Duplicate
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	4.0	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	2.1	16	13	13
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	37	15	15
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-11	MW-11A	MW-12	MW-12
Sample Name:		GW-013926-101916-SAG-010	GW-013926-101916-SAG-009	GW-013926-101816-SAG-007	GW-013926-101816-SAG-008
Sample Date:		10/19/2016	10/19/2016	10/18/2016	10/18/2016
					Duplicate
Parameters	**Unit**				
Volatile Organic Compounds - Continued					
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	9.4	27	62	55
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	5.4	71	61	58
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Metals					
Mercury	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Antimony	µg/L	--	--	--	--
Arsenic	µg/L	5.00 U	0.282 J	5.00 U	5.00 U
Barium	µg/L	59.3	115	143	141
Beryllium	µg/L	--	--	--	--
Cadmium	µg/L	0.480 J	0.902	0.203 J	0.201 J
Calcium	µg/L	--	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Cobalt	µg/L	--	--	--	--
Copper	µg/L	1.15 J	0.877 J	1.31 J	1.08 J
Iron	µg/L	68.6 J	72.8 J	118	120
Iron (dissolved)	µg/L	--	--	--	--
Lead	µg/L	1.00 U	1.00 U	1.00 U	1.00 U
Magnesium	µg/L	--	--	--	--
Manganese	µg/L	398	2010	176	176
Manganese (dissolved)	µg/L	--	--	--	--
Nickel	µg/L	--	--	--	--
Potassium	µg/L	--	--	--	--
Selenium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Silver	µg/L	--	--	--	--
Sodium	µg/L	--	--	--	--
Thallium	µg/L	--	--	--	--
Vanadium	µg/L	--	--	--	--
Zinc	µg/L	--	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-11	MW-11A	MW-12	MW-12
Sample Name:		GW-013926-101916-SAG-010	GW-013926-101916-SAG-009	GW-013926-101816-SAG-007	GW-013926-101816-SAG-008
Sample Date:		10/19/2016	10/19/2016	10/18/2016	10/18/2016
					Duplicate
Parameters	**Unit**				
Dissolved Gases					
Ethane	µg/L	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	µg/L	7.0 U	7.0 U	7.0 U	7.0 U
Methane	µg/L	1.9 J	4.0 U	4.0 U	1.2 J
General Chemistry					
Alkalinity, total (as CaCO3)	mg/L	11.0	20.0	6.00	8.00
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	5.8	12	11	12
Nitrate (as N)	mg/L	0.26	0.51	1.9	1.9
Orthophosphate	mg/L	0.0100 U	0.0162	0.0289	0.0292
Sulfate	mg/L	0.99 J	4.1	2.2	2.2
Total organic carbon (TOC)	mg/L	2.09	1.00 U	1.00 U	0.532 J
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-13	MW-14	MW-25	MW-27
Sample Name:		GW-013926-101816-DJB-104	GW-013926-101816-DJB-102	GW-013926-101916-SAG-011	GW-013926-101816-SAG-003
Sample Date:		10/18/2016	10/18/2016	10/19/2016	10/18/2016
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	2.9	1.0 U	4.4	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	4.9	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	4.3	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	42	2.0 U	16	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.6	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	93	1.0 U	23	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-13	MW-14	MW-25	MW-27
Sample Name:		GW-013926-101816-DJB-104	GW-013926-101816-DJB-102	GW-013926-101916-SAG-011	GW-013926-101816-SAG-003
Sample Date:		10/18/2016	10/18/2016	10/19/2016	10/18/2016
Parameters	**Unit**				
Volatile Organic Compounds - Continued					
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.6
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	46	1.0 U	10	570 J
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	180	1.0 U	81	3.3
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Metals					
Mercury	mg/L	--	--	--	0.00020 U
Aluminum	µg/L	--	--	--	4590
Antimony	µg/L	--	--	--	0.256 J
Arsenic	µg/L	5.00 U	5.00 U	0.360 J	4.05 J
Barium	µg/L	73.5	42.4	180	179
Beryllium	µg/L	--	--	--	0.337 J
Cadmium	µg/L	0.700 U	0.700 U	0.188 J	0.388 J
Calcium	µg/L	--	--	--	1490
Chromium	µg/L	5.00 U	5.00 U	5.00 U	9.39
Cobalt	µg/L	--	--	--	2.16 J
Copper	µg/L	0.768 J	0.953 J	0.587 J	2.01
Iron	µg/L	100 U	489	100 U	3580
Iron (dissolved)	µg/L	--	--	--	100 U
Lead	µg/L	1.00 U	1.00 U	1.00 U	3.28
Magnesium	µg/L	--	--	--	1960
Manganese	µg/L	32.9	5.02	3960	276
Manganese (dissolved)	µg/L	--	--	--	26.0
Nickel	µg/L	--	--	--	6.13
Potassium	µg/L	--	--	--	2100
Selenium	µg/L	5.00 U	5.00 U	5.00 U	0.260 J
Silver	µg/L	--	--	--	0.0220 J
Sodium	µg/L	--	--	--	39600
Thallium	µg/L	--	--	--	1.00 U
Vanadium	µg/L	--	--	--	56.6
Zinc	µg/L	--	--	--	14.0

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-13	MW-14	MW-25	MW-27
Sample Name:		GW-013926-101816-DJB-104	GW-013926-101816-DJB-102	GW-013926-101916-SAG-011	GW-013926-101816-SAG-003
Sample Date:		10/18/2016	10/18/2016	10/19/2016	10/18/2016
Parameters	**Unit**				
Dissolved Gases					
Ethane	µg/L	9.0 U	9.0 U	9.0 U	--
Ethene	µg/L	7.0 U	7.0 U	7.0 U	--
Methane	µg/L	4.0 U	1.6 J	8.5	--
General Chemistry					
Alkalinity, total (as CaCO3)	mg/L	23.0	19.0	5.00	--
Ammonia	mg/L	0.020 U	0.020 U	0.015 J	0.045
Chloride	mg/L	11	2.1	28	--
Nitrate (as N)	mg/L	0.67	1.4	0.38	5.0
Orthophosphate	mg/L	0.138	0.0123	0.00514 J	6.40
Sulfate	mg/L	0.57 J	13	0.87 J	8.2
Total organic carbon (TOC)	mg/L	1.00 U	1.00 U	1.21	--
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-28	MW-32	MW-39	MW-40
Sample Name:		GW-013926-101816-SAG-001	GW-013926-101816-SAG-002	GW-013926-101816-SAG-006	GW-013926-101816-SAG-004
Sample Date:		10/18/2016	10/18/2016	10/18/2016	10/18/2016
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	--	--	--
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	2.0	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-28	MW-32	MW-39	MW-40
Sample Name:		GW-013926-101816-SAG-001	GW-013926-101816-SAG-002	GW-013926-101816-SAG-006	GW-013926-101816-SAG-004
Sample Date:		10/18/2016	10/18/2016	10/18/2016	10/18/2016
Parameters	**Unit**				
Volatile Organic Compounds - Continued					
Methyl tert butyl ether (MTBE)	µg/L	1.6	1.2	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	810 J	940 J	45	15
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	4.3	5.4	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Metals					
Mercury	mg/L	0.00020 U	0.00007 J	0.00020 U	0.00020 U
Aluminum	µg/L	17400	7640	5810	303
Antimony	µg/L	5.00 U	5.00 U	0.461 J	5.00 U
Arsenic	µg/L	7.81	1.14 J	0.338 J	5.00 U
Barium	µg/L	677	284	213	170
Beryllium	µg/L	1.22	1.03	0.671 J	0.283 J
Cadmium	µg/L	0.198 J	0.221 J	0.262 J	0.464 J
Calcium	µg/L	1690	3000	818	1130
Chromium	µg/L	27.9	20.8	8.30	5.00 U
Cobalt	µg/L	6.18	3.49 J	3.45 J	6.87
Copper	µg/L	6.32	7.66	2.93	0.606 J
Iron	µg/L	13800	9850	3710	201
Iron (dissolved)	µg/L	100 U	34.2 J	100 U	39.9 J
Lead	µg/L	11.5	7.30	18.4	1.12
Magnesium	µg/L	6200	2360	2550	2230
Manganese	µg/L	330	89.2	51.6	419
Manganese (dissolved)	µg/L	19.8	11.2	30.2	420
Nickel	µg/L	19.3	7.09	2.58 J	4.23 J
Potassium	µg/L	5500	2590	3390	4270
Selenium	µg/L	5.00 U	0.166 J	5.00 U	0.508 J
Silver	µg/L	0.0440 J	0.162 J	0.163 J	1.00 U
Sodium	µg/L	52800	26500	11400	5350
Thallium	µg/L	0.297 J	1.00 U	0.183 J	0.573 J
Vanadium	µg/L	103	25.8	4.82 J	5.00 U
Zinc	µg/L	35.0	18.2	13.3	10.0

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-28	MW-32	MW-39	MW-40
Sample Name:		GW-013926-101816-SAG-001	GW-013926-101816-SAG-002	GW-013926-101816-SAG-006	GW-013926-101816-SAG-004
Sample Date:		10/18/2016	10/18/2016	10/18/2016	10/18/2016
Parameters	**Unit**				
Dissolved Gases					
Ethane	µg/L	--	--	--	--
Ethene	µg/L	--	--	--	--
Methane	µg/L	--	--	--	--
General Chemistry					
Alkalinity, total (as CaCO3)	mg/L	--	--	--	--
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	--	--	--	--
Nitrate (as N)	mg/L	4.7	4.9	3.0	1.6
Orthophosphate	mg/L	12.0	1.43	0.0379	0.0100 U
Sulfate	mg/L	18	10	11	7.8
Total organic carbon (TOC)	mg/L	--	--	--	--
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-40	MW-41	MW-42	TW-2
Sample Name:		GW-013926-101816-SAG-005	GW-013926-101816-DJB-101	GW-013926-101916-DJB-106	GW-013926-101816-DJB-103
Sample Date:		10/18/2016	10/18/2016	10/19/2016	10/18/2016
		Duplicate			
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	2.1	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	8.5	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	23	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	31	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	2.2	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	2.0 U	7.1	550 J	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	0.86 J	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	14	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	2.1	230	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-40	MW-41	MW-42	TW-2
Sample Name:		GW-013926-101816-SAG-005	GW-013926-101816-DJB-101	GW-013926-101916-DJB-106	GW-013926-101816-DJB-103
Sample Date:		10/18/2016	10/18/2016	10/19/2016	10/18/2016
		Duplicate			
Parameters	**Unit**				
Volatile Organic Compounds - Continued					
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	9.9	9.6	110	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	1.0 U	8.7	320	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	2.6	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.9	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Metals					
Mercury	mg/L	0.00020 U	--	--	--
Aluminum	µg/L	307	--	--	--
Antimony	µg/L	5.00 U	--	--	--
Arsenic	µg/L	5.00 U	5.00 U	0.237 J	5.00 U
Barium	µg/L	170	173	234	35.8
Beryllium	µg/L	0.310 J	--	--	--
Cadmium	µg/L	0.475 J	0.313 J	0.700 U	0.700 U
Calcium	µg/L	1180	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Cobalt	µg/L	6.85	--	--	--
Copper	µg/L	1.41 J	1.49 J	0.645 J	2.54
Iron	µg/L	194	402	906	890
Iron (dissolved)	µg/L	100 U	--	--	--
Lead	µg/L	1.17	1.05 U	1.00 U	1.00 U
Magnesium	µg/L	2200	--	--	--
Manganese	µg/L	421	32.6	32.2	195
Manganese (dissolved)	µg/L	442	--	--	--
Nickel	µg/L	4.25 J	--	--	--
Potassium	µg/L	4370	--	--	--
Selenium	µg/L	0.572 J	5.00 U	5.00 U	5.00 U
Silver	µg/L	1.00 U	--	--	--
Sodium	µg/L	5410	--	--	--
Thallium	µg/L	0.578 J	--	--	--
Vanadium	µg/L	1.67 J	--	--	--
Zinc	µg/L	10.1	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Location ID:		MW-40	MW-41	MW-42	TW-2
Sample Name:		GW-013926-101816-SAG-005	GW-013926-101816-DJB-101	GW-013926-101916-DJB-106	GW-013926-101816-DJB-103
Sample Date:		10/18/2016	10/18/2016	10/19/2016	10/18/2016
		Duplicate			
Parameters	**Unit**				
Dissolved Gases					
Ethane	µg/L	--	9.0 U	9.0 U	9.0 U
Ethene	µg/L	--	7.0 U	7.0 U	7.0 U
Methane	µg/L	--	4.0 U	8.5	73
General Chemistry					
Alkalinity, total (as CaCO3)	mg/L	--	2.00 J	40.0	29.0
Ammonia	mg/L	0.020 U	0.020 U	0.034	0.020 U
Chloride	mg/L	--	11	13	1.8
Nitrate (as N)	mg/L	1.6	1.2	1.2	0.92
Orthophosphate	mg/L	0.00602 J	0.236	0.151	0.0848
Sulfate	mg/L	7.4	16	0.49 J	2.3
Total organic carbon (TOC)	mg/L	--	0.402 J	0.650 J	1.00 U
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit
-- - Not analyzed

Table 3

Analytical Methods
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260B	Groundwater	14
1,4-Dioxane	SW-846 8260B (SIM)	Groundwater	14
Dissolved Gases	RSK 175	Groundwater	14
Ethylene Dibromide (EDB)	SW-846 8011	Groundwater	14
Total and Dissolved Metals	SW-846 6020A	Groundwater	180
Mercury	SW-846 7470A	Groundwater	28
Alkalinity	SM 2320 B	Groundwater	14
Total Organic Carbon (TOC)	SW-846 9060A	Groundwater	28
Nitrate	SW-846 9056A	Groundwater	48 hours
Sulfate, Chloride	SW-846 9056A	Groundwater	28
Orthophosphate	EPA 365.1	Groundwater	48 hours
Ammonia	EPA 350.1	Groundwater	28

Notes:

EPA - Referenced from "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986 with all subsequent revisions
RSK - "Analysis of Dissolved Methane, Ethane, and Ethylene in Ground Water by a Standard Gas Chromatographic Technique", Journal of Chromatographic Science, Vol. 36, May 1998
SW-846 - Referenced from "Methods for the Chemical Analysis of Water and Wastes", (MCAWW), USEPA-600/4-79-020, March 1983 and subsequent revisions
SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions
SIM - Selected Ion Monitoring
USEPA - United States Environmental Protection Agency

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Parameter	Analyte	Analysis Date	Blank Result	Sample ID	Original Result	Qualified Result	Units
Metals	Arsenic	10/26/2016	0.392 J	GW-013926-101816-DJB-101	0.911 J	5.00 U	µg/L
				GW-013926-101816-DJB-102	0.349 J	5.00 U	µg/L
				GW-013926-101816-DJB-103	0.366 J	5.00 U	µg/L
				GW-013926-101816-DJB-104	0.351 J	5.00 U	µg/L
				GW-013926-101816-SAG-007	0.243 J	5.00 U	µg/L
				GW-013926-101816-SAG-008	0.202 J	5.00 U	µg/L
Metals	Chromium	10/26/2016	0.653 J	GW-013926-101816-DJB-101	1.73 J	5.00 U	µg/L
				GW-013926-101816-DJB-102	1.47 J	5.00 U	µg/L
				GW-013926-101816-DJB-103	2.81 J	5.00 U	µg/L
				GW-013926-101816-DJB-104	0.867 J	5.00 U	µg/L
				GW-013926-101816-SAG-007	3.83 J	5.00 U	µg/L
				GW-013926-101816-SAG-008	3.68 J	5.00 U	µg/L
Metals	Lead	10/26/2016	0.282 J	GW-013926-101816-DJB-101	1.05	1.05 U	µg/L
				GW-013926-101816-DJB-102	0.504 J	1.00 U	µg/L
				GW-013926-101816-DJB-103	0.906 J	1.00 U	µg/L
				GW-013926-101816-DJB-104	0.221 J	1.00 U	µg/L
				GW-013926-101816-SAG-007	0.307 J	1.00 U	µg/L
				GW-013926-101816-SAG-008	0.351 J	1.00 U	µg/L
Metals	Selenium	10/26/2016	0.841 J	GW-013926-101816-DJB-101	1.05 J	5.00 U	µg/L
				GW-013926-101816-DJB-102	1.36 J	5.00 U	µg/L
				GW-013926-101816-DJB-103	0.185 J	5.00 U	µg/L
				GW-013926-101816-SAG-007	0.320 J	5.00 U	µg/L
				GW-013926-101816-SAG-008	0.170 J	5.00 U	µg/L
Metals	Chromium	10/25/2016	0.450 J	GW-013926-101816-SAG-004	1.10 J	5.00 U	µg/L
				GW-013926-101816-SAG-005	1.23 J	5.00 U	µg/L

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Parameter	Analyte	Analysis Date	Blank Result	Sample ID	Original Result	Qualified Result	Units
Metals	Chromium	10/27/2016	0.568 J	GW-013926-101916-SAG-009	0.651 J	5.00 U	µg/L
				GW-013926-101916-SAG-010	0.677 J	5.00 U	µg/L
				GW-013926-101916-SAG-011	0.578 J	5.00 U	µg/L
				GW-013926-101916-SAG-012	0.855 J	5.00 U	µg/L
				GW-013926-101916-DJB-105	0.560 J	5.00 U	µg/L
				GW-013926-101916-DJB-106	2.12 J	5.00 U	µg/L
				GW-013926-101916-DJB-107	1.39 J	5.00 U	µg/L
				GW-013926-101916-DJB-108	0.803 J	5.00 U	µg/L
				GW-013926-101916-DJB-109	0.700 J	5.00 U	µg/L
Metals	Lead	10/27/2016	0.208 J	GW-013926-101916-SAG-009	0.699 J	1.00 U	µg/L
				GW-013926-101916-SAG-010	0.489 J	1.00 U	µg/L
				GW-013926-101916-SAG-011	0.184 J	1.00 U	µg/L
				GW-013926-101916-SAG-012	0.401 J	1.00 U	µg/L
				GW-013926-101916-DJB-105	0.289 J	1.00 U	µg/L
				GW-013926-101916-DJB-106	0.345 J	1.00 U	µg/L
				GW-013926-101916-DJB-107	0.733 J	1.00 U	µg/L
				GW-013926-101916-DJB-108	0.735 J	1.00 U	µg/L
Metals	Manganese	10/27/2016	0.737 J	GW-013926-101916-DJB-108	2.45 J	5.00 U	µg/L
				GW-013926-101916-SAG-009	0.217 J	1.00 U	µg/L
Metals	Selenium	10/27/2016	0.220 J	GW-013926-101916-SAG-011	0.539 J	1.00 U	µg/L
				GW-013926-101916-SAG-012	0.282 J	1.00 U	µg/L
				GW-013926-101916-DJB-106	0.224 J	1.00 U	µg/L
				GW-013926-101916-DJB-107	0.885 J	1.00 U	µg/L
				GW-013926-101916-DJB-108	0.590 J	1.00 U	µg/L

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit

Table 5

Qualified Sample Results Due to Outlying MS/MSD Results
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits % Recovery	Control Limits RPD	Qualified Result	Units
VOCs	GW-013926-101916-SAG-012	1,1,2,2-Tetrachloroethane	57	60	5	67-128	20	3.8 J	µg/L

Notes:

VOCs - Volatile Organic Compounds
J - Estimated concentration
MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference

Table 6

Qualified Sample Results Due to Exceedance of Calibration Range
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2016

Parameter	Analyte	Sample ID	Qualified Sample Results	Units
VOCs	1,4-dioxane	GW-013926-101916-DJB-106	550 J	µg/L
		GW-013926-101916-DJB-107	340 J	µg/L
VOCs	Tetrachloroethene	GW-013926-101816-SAG-001	810 J	µg/L
		GW-013926-101816-SAG-002	940 J	µg/L
		GW-013926-101816-SAG-003	570 J	µg/L

Notes:

VOCs - Volatile Organic Compounds
J - Estimated Concentration

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 31, 2016

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1610F19

Analytical Environmental Services, Inc. received 7 samples on 10/19/2016 9:50:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

except EDB

Work Order: 1610F19

Date: 10/18/16 Page 1 of 1

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd suite 470 Duluth, GA 30096

PHONE: 770 · 441 · 0027

FAX: 770 - 441 - 2050

SAMPLED BY: DJB + SAG

SIGNATURE: [signature]

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL Vact TMDS	1,4 Dioxane	SSP Metals	Iron + Manganese	Dis. Gases	Alkalinity	Chloride	Nitrate	Sulfate	TOC	Ammonia	Orthophosphate	EDB	REMARKS	No # of Containers
							PRESERVATION (See codes)														
1	GW-013926-101816-DJB-101	10/18/16	9:45	G		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	See SSOW #	12
2	GW-013926-101816-DJB-102	↓	12:30	G		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	13926-25	12
3	GW-013926-101816-DJB-103	↓	13:35	G		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		12
4	GW-013926-101816-DJB-104	10/18/16	15:00	G		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		12
~~5~~	~~GW-013926-101816-SAG-007~~	↓	—	G		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		~~12~~
6	GW-013926-101816-SAG-008		15:25	G		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		12
7	GW-013926-101816-SAG-009	10/18/16	15:45	G		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		12
8	Trip Blank						X														2
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	10/18/16 (17:15)	1: [signature]	10/19/16 9:50
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT (FedEx) UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Aqua-Tech Env.
PROJECT #: 013926
SITE ADDRESS: Greer, SC
SEND REPORT TO: See SSOW
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers 74

Turnaround Time Request
(X) Standard 5 Business Days
( ) 2 Business Day Rush
( ) Next Business Day Rush
( ) Same Day Rush (auth req.)
( ) Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1610F19

Case Narrative

Micro-extractable VOC Analysis by Method 8011:

Matrix spike duplicate analyses were not performed with Batch 231392 due to insufficient sample volume.

Volatiles Organic Compounds Analysis by Method 8260:

Matrix spike and/or matrix spike duplicate analyses were not performed with Batch 231766 due to insufficient sample volume.

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-101
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 9:45:00 AM
Lab ID:	1610F19-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 16:42	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 16:42	JE
1,4-Dioxane	BRL		11	150	ug/L	231478	1	10/20/2016 16:42	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 16:42	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 16:42	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 16:42	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 16:42	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 16:42	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 16:42	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 16:42	JE
cis-1,2-Dichloroethene	2.1		0.27	1.0	ug/L	231478	1	10/20/2016 16:42	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 16:42	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 16:42	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 16:42	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 16:42	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-101
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 9:45:00 AM
Lab ID:	1610F19-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 16:42	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 16:42	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Tetrachloroethene	9.6		0.29	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 16:42	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 16:42	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 16:42	JE
Trichloroethene	8.7		0.35	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 16:42	JE
Surr: 4-Bromofluorobenzene	98		0	70-130	%REC	231478	1	10/20/2016 16:42	JE
Surr: Dibromofluoromethane	99.5		0	70-130	%REC	231478	1	10/20/2016 16:42	JE
Surr: Toluene-d8	99		0	70-130	%REC	231478	1	10/20/2016 16:42	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.402	J	0.337	1.00	mg/L	R327893	1	10/20/2016 13:42	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.911	J	0.125	5.00	ug/L	231659	1	10/26/2016 17:28	JS
Barium	173		0.180	10.0	ug/L	231659	1	10/26/2016 17:28	JS
Cadmium	0.313	J	0.184	0.700	ug/L	231659	1	10/26/2016 17:28	JS
Chromium	1.73	J	0.137	5.00	ug/L	231659	1	10/26/2016 17:28	JS
Copper	1.49	J	0.228	2.00	ug/L	231659	1	10/26/2016 17:28	JS
Iron	402		31.9	100	ug/L	231659	1	10/26/2016 17:28	JS
Lead	1.05		0.143	1.00	ug/L	231659	1	10/26/2016 17:28	JS
Manganese	32.6		0.508	5.00	ug/L	231659	1	10/26/2016 17:28	JS
Selenium	1.05	J	0.159	5.00	ug/L	231659	1	10/26/2016 17:28	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.236		0.00760	0.0200	mg/L	R327775	2	10/19/2016 17:09	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:09	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.003	0.020	ug/L	231392	1	10/21/2016 12:30	AW
Surr: 4-Bromofluorobenzene	121		0	64.9-131	%REC	231392	1	10/21/2016 12:30	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-101
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 9:45:00 AM
Lab ID:	1610F19-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	11		0.11	1.0	mg/L	R328167	1	10/19/2016 14:20	JW
Nitrate	1.2		0.024	0.25	mg/L	R328167	1	10/19/2016 14:20	JW
Sulfate	16		0.10	1.0	mg/L	R328167	1	10/19/2016 14:20	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231386	1	10/21/2016 09:22	MD
Ethylene	BRL		3.5	7.0	ug/L	231386	1	10/21/2016 09:22	MD
Methane	BRL		1.2	4.0	ug/L	231386	1	10/21/2016 09:22	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	2.00	J	1.68	3.00	mg/L	R327835	1	10/20/2016 12:00	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	7.1		0.90	2.0	ug/L	231766	1	10/26/2016 14:29	NH
Surr: 4-Bromofluorobenzene	97		0	83.1-115	%REC	231766	1	10/26/2016 14:29	NH
Surr: Dibromofluoromethane	92.8		0	80.6-123	%REC	231766	1	10/26/2016 14:29	NH
Surr: Toluene-d8	101		0	85-115	%REC	231766	1	10/26/2016 14:29	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-102
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 12:30:00 PM
Lab ID:	1610F19-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 21:05	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 21:05	JE
1,4-Dioxane	BRL		11	150	ug/L	231478	1	10/20/2016 21:05	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 21:05	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 21:05	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 21:05	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 21:05	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 21:05	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 21:05	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 21:05	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231478	1	10/20/2016 21:05	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 21:05	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 21:05	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 21:05	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 21:05	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-102
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 12:30:00 PM
Lab ID:	1610F19-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 21:05	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 21:05	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Tetrachloroethene	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 21:05	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 21:05	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 21:05	JE
Trichloroethene	BRL		0.35	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 21:05	JE
Surr: 4-Bromofluorobenzene	99.4		0	70-130	%REC	231478	1	10/20/2016 21:05	JE
Surr: Dibromofluoromethane	97		0	70-130	%REC	231478	1	10/20/2016 21:05	JE
Surr: Toluene-d8	94.8		0	70-130	%REC	231478	1	10/20/2016 21:05	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R327893	1	10/20/2016 14:03	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.349	J	0.125	5.00	ug/L	231659	1	10/26/2016 18:00	JS
Barium	42.4		0.180	10.0	ug/L	231659	1	10/26/2016 18:00	JS
Cadmium	BRL		0.184	0.700	ug/L	231659	1	10/26/2016 18:00	JS
Chromium	1.47	J	0.137	5.00	ug/L	231659	1	10/26/2016 18:00	JS
Copper	0.953	J	0.228	2.00	ug/L	231659	1	10/26/2016 18:00	JS
Iron	489		31.9	100	ug/L	231659	1	10/26/2016 18:00	JS
Lead	0.504	J	0.143	1.00	ug/L	231659	1	10/26/2016 18:00	JS
Manganese	5.02		0.508	5.00	ug/L	231659	1	10/26/2016 18:00	JS
Selenium	1.36	J	0.159	5.00	ug/L	231659	1	10/26/2016 18:00	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0123		0.00380	0.0100	mg/L	R327775	1	10/19/2016 16:45	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:11	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231897	1	10/29/2016 01:00	AW
Surr: 4-Bromofluorobenzene	105		0	64.9-131	%REC	231897	1	10/29/2016 01:00	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-102
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 12:30:00 PM
Lab ID:	1610F19-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	2.1		0.11	1.0	mg/L	R328167	1	10/19/2016 14:35	JW
Nitrate	1.4		0.024	0.25	mg/L	R328167	1	10/19/2016 14:35	JW
Sulfate	13		0.10	1.0	mg/L	R328167	1	10/19/2016 14:35	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231386	1	10/21/2016 09:27	MD
Ethylene	BRL		3.5	7.0	ug/L	231386	1	10/21/2016 09:27	MD
Methane	1.6	J	1.2	4.0	ug/L	231386	1	10/21/2016 09:27	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	19.0		1.68	3.00	mg/L	R327835	1	10/20/2016 12:00	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 14:55	NH
Surr: 4-Bromofluorobenzene	96.2		0	83.1-115	%REC	231766	1	10/26/2016 14:55	NH
Surr: Dibromofluoromethane	91.8		0	80.6-123	%REC	231766	1	10/26/2016 14:55	NH
Surr: Toluene-d8	102		0	85-115	%REC	231766	1	10/26/2016 14:55	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-103
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 1:35:00 PM
Lab ID:	1610F19-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 17:06	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 17:06	JE
1,4-Dioxane	BRL		11	150	ug/L	231478	1	10/20/2016 17:06	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 17:06	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 17:06	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 17:06	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 17:06	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 17:06	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 17:06	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 17:06	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231478	1	10/20/2016 17:06	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 17:06	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 17:06	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 17:06	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 17:06	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-103
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 1:35:00 PM
Lab ID:	1610F19-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 17:06	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 17:06	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Tetrachloroethene	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 17:06	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 17:06	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 17:06	JE
Trichloroethene	BRL		0.35	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 17:06	JE
Surr: 4-Bromofluorobenzene	101		0	70-130	%REC	231478	1	10/20/2016 17:06	JE
Surr: Dibromofluoromethane	99.6		0	70-130	%REC	231478	1	10/20/2016 17:06	JE
Surr: Toluene-d8	96.8		0	70-130	%REC	231478	1	10/20/2016 17:06	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R327893	1	10/20/2016 14:25	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.366	J	0.125	5.00	ug/L	231659	1	10/26/2016 18:06	JS
Barium	35.8		0.180	10.0	ug/L	231659	1	10/26/2016 18:06	JS
Cadmium	BRL		0.184	0.700	ug/L	231659	1	10/26/2016 18:06	JS
Chromium	2.81	J	0.137	5.00	ug/L	231659	1	10/26/2016 18:06	JS
Copper	2.54		0.228	2.00	ug/L	231659	1	10/26/2016 18:06	JS
Iron	890		31.9	100	ug/L	231659	1	10/26/2016 18:06	JS
Lead	0.906	J	0.143	1.00	ug/L	231659	1	10/26/2016 18:06	JS
Manganese	195		0.508	5.00	ug/L	231659	1	10/26/2016 18:06	JS
Selenium	0.185	J	0.159	5.00	ug/L	231659	1	10/26/2016 18:06	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0848		0.00380	0.0100	mg/L	R327775	1	10/19/2016 16:46	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:13	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.003	0.020	ug/L	231897	1	10/29/2016 01:28	AW
Surr: 4-Bromofluorobenzene	109		0	64.9-131	%REC	231897	1	10/29/2016 01:28	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-103
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 1:35:00 PM
Lab ID:	1610F19-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	1.8		0.11	1.0	mg/L	R328167	1	10/19/2016 14:50	JW
Nitrate	0.92		0.024	0.25	mg/L	R328167	1	10/19/2016 14:50	JW
Sulfate	2.3		0.10	1.0	mg/L	R328167	1	10/19/2016 14:50	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231386	1	10/21/2016 09:33	MD
Ethylene	BRL		3.5	7.0	ug/L	231386	1	10/21/2016 09:33	MD
Methane	73		1.2	4.0	ug/L	231386	1	10/21/2016 09:33	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	29.0		1.68	3.00	mg/L	R327835	1	10/20/2016 12:00	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 16:40	NH
Surr: 4-Bromofluorobenzene	96.5		0	83.1-115	%REC	231766	1	10/26/2016 16:40	NH
Surr: Dibromofluoromethane	92.5		0	80.6-123	%REC	231766	1	10/26/2016 16:40	NH
Surr: Toluene-d8	104		0	85-115	%REC	231766	1	10/26/2016 16:40	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-104
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 3:00:00 PM
Lab ID:	1610F19-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,1,2,2-Tetrachloroethane	2.9		0.24	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,1-Dichloroethane	4.9		0.25	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,1-Dichloroethene	4.3		0.36	2.0	ug/L	231478	1	10/20/2016 17:30	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 17:30	JE
1,4-Dioxane	BRL		11	150	ug/L	231478	1	10/20/2016 17:30	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 17:30	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 17:30	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 17:30	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 17:30	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 17:30	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 17:30	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Chloroform	1.6		0.30	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 17:30	JE
cis-1,2-Dichloroethene	93		0.27	1.0	ug/L	231478	1	10/20/2016 17:30	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 17:30	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 17:30	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 17:30	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 17:30	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-104
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 3:00:00 PM
Lab ID:	1610F19-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 17:30	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 17:30	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Tetrachloroethene	46		0.29	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 17:30	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 17:30	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 17:30	JE
Trichloroethene	180		0.35	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 17:30	JE
Surr: 4-Bromofluorobenzene	98.7		0	70-130	%REC	231478	1	10/20/2016 17:30	JE
Surr: Dibromofluoromethane	98.3		0	70-130	%REC	231478	1	10/20/2016 17:30	JE
Surr: Toluene-d8	97.4		0	70-130	%REC	231478	1	10/20/2016 17:30	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R327893	1	10/20/2016 14:50	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.351	J	0.125	5.00	ug/L	231659	1	10/26/2016 20:50	JS
Barium	73.5		0.180	10.0	ug/L	231659	1	10/26/2016 20:50	JS
Cadmium	BRL		0.184	0.700	ug/L	231659	1	10/26/2016 20:50	JS
Chromium	0.867	J	0.137	5.00	ug/L	231659	1	10/26/2016 20:50	JS
Copper	0.768	J	0.228	2.00	ug/L	231659	1	10/26/2016 20:50	JS
Iron	BRL		31.9	100	ug/L	231659	1	10/26/2016 20:50	JS
Lead	0.221	J	0.143	1.00	ug/L	231659	1	10/26/2016 20:50	JS
Manganese	32.9		0.508	5.00	ug/L	231659	1	10/26/2016 20:50	JS
Selenium	BRL		0.159	5.00	ug/L	231659	1	10/26/2016 20:50	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.138		0.00380	0.0100	mg/L	R327775	1	10/19/2016 17:10	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:14	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.003	0.020	ug/L	231897	1	10/29/2016 01:57	AW
Surr: 4-Bromofluorobenzene	108		0	64.9-131	%REC	231897	1	10/29/2016 01:57	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-DJB-104
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 3:00:00 PM
Lab ID:	1610F19-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	11		0.11	1.0	mg/L	R328167	1	10/19/2016 15:05	JW
Nitrate	0.67		0.024	0.25	mg/L	R328167	1	10/19/2016 15:05	JW
Sulfate	0.57	J	0.10	1.0	mg/L	R328167	1	10/19/2016 15:05	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231386	1	10/21/2016 09:38	MD
Ethylene	BRL		3.5	7.0	ug/L	231386	1	10/21/2016 09:38	MD
Methane	BRL		1.2	4.0	ug/L	231386	1	10/21/2016 09:38	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	23.0		1.68	3.00	mg/L	R327835	1	10/20/2016 12:00	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	42		0.90	2.0	ug/L	231766	1	10/26/2016 15:21	NH
Surr: 4-Bromofluorobenzene	94.9		0	83.1-115	%REC	231766	1	10/26/2016 15:21	NH
Surr: Dibromofluoromethane	92.7		0	80.6-123	%REC	231766	1	10/26/2016 15:21	NH
Surr: Toluene-d8	103		0	85-115	%REC	231766	1	10/26/2016 15:21	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 3:25:00 PM
Lab ID:	1610F19-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 17:54	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 17:54	JE
1,4-Dioxane	BRL		11	150	ug/L	231478	1	10/20/2016 17:54	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 17:54	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 17:54	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 17:54	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 17:54	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 17:54	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 17:54	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 17:54	JE
cis-1,2-Dichloroethene	15		0.27	1.0	ug/L	231478	1	10/20/2016 17:54	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 17:54	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 17:54	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 17:54	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 17:54	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 3:25:00 PM
Lab ID:	1610F19-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 17:54	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 17:54	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Tetrachloroethene	62		0.29	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 17:54	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 17:54	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 17:54	JE
Trichloroethene	61		0.35	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 17:54	JE
Surr: 4-Bromofluorobenzene	99.4		0	70-130	%REC	231478	1	10/20/2016 17:54	JE
Surr: Dibromofluoromethane	97.9		0	70-130	%REC	231478	1	10/20/2016 17:54	JE
Surr: Toluene-d8	97.9		0	70-130	%REC	231478	1	10/20/2016 17:54	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R327893	1	10/20/2016 15:14	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.243	J	0.125	5.00	ug/L	231659	1	10/26/2016 20:56	JS
Barium	143		0.180	10.0	ug/L	231659	1	10/26/2016 20:56	JS
Cadmium	0.203	J	0.184	0.700	ug/L	231659	1	10/26/2016 20:56	JS
Chromium	3.83	J	0.137	5.00	ug/L	231659	1	10/26/2016 20:56	JS
Copper	1.31	J	0.228	2.00	ug/L	231659	1	10/26/2016 20:56	JS
Iron	118		31.9	100	ug/L	231659	1	10/26/2016 20:56	JS
Lead	0.307	J	0.143	1.00	ug/L	231659	1	10/26/2016 20:56	JS
Manganese	176		0.508	5.00	ug/L	231659	1	10/26/2016 20:56	JS
Selenium	0.320	J	0.159	5.00	ug/L	231659	1	10/26/2016 20:56	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0289		0.00380	0.0100	mg/L	R327775	1	10/19/2016 16:48	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:21	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231897	1	10/29/2016 02:25	AW
Surr: 4-Bromofluorobenzene	92.9		0	64.9-131	%REC	231897	1	10/29/2016 02:25	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 3:25:00 PM
Lab ID:	1610F19-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	11		0.11	1.0	mg/L	R328167	1	10/19/2016 16:03	JW
Nitrate	1.9		0.024	0.25	mg/L	R328167	1	10/19/2016 16:03	JW
Sulfate	2.2		0.10	1.0	mg/L	R328167	1	10/19/2016 16:03	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231386	1	10/21/2016 09:42	MD
Ethylene	BRL		3.5	7.0	ug/L	231386	1	10/21/2016 09:42	MD
Methane	BRL		1.2	4.0	ug/L	231386	1	10/21/2016 09:42	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	6.00		1.68	3.00	mg/L	R327835	1	10/20/2016 12:00	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	13		0.90	2.0	ug/L	231766	1	10/26/2016 17:06	NH
Surr: 4-Bromofluorobenzene	96.3		0	83.1-115	%REC	231766	1	10/26/2016 17:06	NH
Surr: Dibromofluoromethane	93.4		0	80.6-123	%REC	231766	1	10/26/2016 17:06	NH
Surr: Toluene-d8	104		0	85-115	%REC	231766	1	10/26/2016 17:06	NH

Qualifiers:

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- E Estimated value above quantitation range
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- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 3:45:00 PM
Lab ID:	1610F19-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 18:17	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 18:17	JE
1,4-Dioxane	BRL		11	150	ug/L	231478	1	10/20/2016 18:17	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 18:17	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 18:17	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 18:17	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 18:17	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 18:17	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 18:17	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 18:17	JE
cis-1,2-Dichloroethene	15		0.27	1.0	ug/L	231478	1	10/20/2016 18:17	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 18:17	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 18:17	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 18:17	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 18:17	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 3:45:00 PM
Lab ID:	1610F19-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 18:17	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 18:17	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Tetrachloroethene	55		0.29	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 18:17	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 18:17	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 18:17	JE
Trichloroethene	58		0.35	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 18:17	JE
Surr: 4-Bromofluorobenzene	103		0	70-130	%REC	231478	1	10/20/2016 18:17	JE
Surr: Dibromofluoromethane	103		0	70-130	%REC	231478	1	10/20/2016 18:17	JE
Surr: Toluene-d8	96.8		0	70-130	%REC	231478	1	10/20/2016 18:17	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.532	J	0.337	1.00	mg/L	R327893	1	10/20/2016 15:36	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.202	J	0.125	5.00	ug/L	231659	1	10/26/2016 21:03	JS
Barium	141		0.180	10.0	ug/L	231659	1	10/26/2016 21:03	JS
Cadmium	0.201	J	0.184	0.700	ug/L	231659	1	10/26/2016 21:03	JS
Chromium	3.68	J	0.137	5.00	ug/L	231659	1	10/26/2016 21:03	JS
Copper	1.08	J	0.228	2.00	ug/L	231659	1	10/26/2016 21:03	JS
Iron	120		31.9	100	ug/L	231659	1	10/26/2016 21:03	JS
Lead	0.351	J	0.143	1.00	ug/L	231659	1	10/26/2016 21:03	JS
Manganese	176		0.508	5.00	ug/L	231659	1	10/26/2016 21:03	JS
Selenium	0.170	J	0.159	5.00	ug/L	231659	1	10/26/2016 21:03	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0292		0.00380	0.0100	mg/L	R327775	1	10/19/2016 16:49	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:23	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.003	0.020	ug/L	231897	1	10/29/2016 03:22	AW
Surr: 4-Bromofluorobenzene	95		0	64.9-131	%REC	231897	1	10/29/2016 03:22	AW
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 3:45:00 PM
Lab ID:	1610F19-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	12		0.11	1.0	mg/L	R328167	1	10/19/2016 16:18	JW
Nitrate	1.9		0.024	0.25	mg/L	R328167	1	10/19/2016 16:18	JW
Sulfate	2.2		0.10	1.0	mg/L	R328167	1	10/19/2016 16:18	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231386	1	10/21/2016 09:47	MD
Ethylene	BRL		3.5	7.0	ug/L	231386	1	10/21/2016 09:47	MD
Methane	1.2	J	1.2	4.0	ug/L	231386	1	10/21/2016 09:47	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	8.00		1.68	3.00	mg/L	R327835	1	10/20/2016 12:00	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	13		0.90	2.0	ug/L	231766	1	10/26/2016 17:32	NH
Surr: 4-Bromofluorobenzene	97.5		0	83.1-115	%REC	231766	1	10/26/2016 17:32	NH
Surr: Dibromofluoromethane	93.3		0	80.6-123	%REC	231766	1	10/26/2016 17:32	NH
Surr: Toluene-d8	105		0	85-115	%REC	231766	1	10/26/2016 17:32	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016
Lab ID:	1610F19-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 15:55	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 15:55	JE
1,4-Dioxane	BRL		11	150	ug/L	231478	1	10/20/2016 15:55	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 15:55	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 15:55	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 15:55	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 15:55	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 15:55	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 15:55	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 15:55	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231478	1	10/20/2016 15:55	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 15:55	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 15:55	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 15:55	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 15:55	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016
Lab ID:	1610F19-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)									
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 15:55	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 15:55	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Tetrachloroethene	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 15:55	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 15:55	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 15:55	JE
Trichloroethene	BRL		0.35	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 15:55	JE
Surr: 4-Bromofluorobenzene	101		0	70-130	%REC	231478	1	10/20/2016 15:55	JE
Surr: Dibromofluoromethane	98.4		0	70-130	%REC	231478	1	10/20/2016 15:55	JE
Surr: Toluene-d8	95.9		0	70-130	%REC	231478	1	10/20/2016 15:55	JE
1,4-Dioxane by SIM GC/MS SW8260B-SIM (SW5030B)									
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 12:17	NH
Surr: 4-Bromofluorobenzene	98.5		0	83.1-115	%REC	231766	1	10/26/2016 12:17	NH
Surr: Dibromofluoromethane	90.9		0	80.6-123	%REC	231766	1	10/26/2016 12:17	NH
Surr: Toluene-d8	101		0	85-115	%REC	231766	1	10/26/2016 12:17	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client GHD Work Order Number 1610F19

Checklist completed by _____ 10/19/16
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 0.4 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\l\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610F19

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610F19-001A	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F19-001A	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F19-001B	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F19-001C	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	GC Analysis of Gaseous Samples		10/20/2016 3:36:10PM	10/21/2016
1610F19-001D	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	Total Metals by ICP/MS		10/25/2016 4:45:00PM	10/26/2016
1610F19-001E	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	Alkalinity by SM2320B			10/20/2016
1610F19-001F	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	ION SCAN			10/19/2016
1610F19-001G	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	Phosphorus, ortho			10/19/2016
1610F19-001H	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	Total Organic Carbon (TOC)			10/20/2016
1610F19-001I	GW-013926-101816-DJB-101	10/18/2016 9:45:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F19-002A	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F19-002A	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F19-002B	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F19-002C	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	GC Analysis of Gaseous Samples		10/20/2016 3:36:10PM	10/21/2016
1610F19-002D	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	Total Metals by ICP/MS		10/25/2016 4:45:00PM	10/26/2016
1610F19-002E	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	Alkalinity by SM2320B			10/20/2016
1610F19-002F	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	ION SCAN			10/19/2016
1610F19-002G	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	Phosphorus, ortho			10/19/2016
1610F19-002H	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	Total Organic Carbon (TOC)			10/20/2016
1610F19-002I	GW-013926-101816-DJB-102	10/18/2016 12:30:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F19-003A	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F19-003A	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F19-003B	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F19-003C	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	GC Analysis of Gaseous Samples		10/20/2016 3:36:10PM	10/21/2016
1610F19-003D	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	Total Metals by ICP/MS		10/25/2016 4:45:00PM	10/26/2016
1610F19-003E	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	Alkalinity by SM2320B			10/20/2016
1610F19-003F	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	ION SCAN			10/19/2016
1610F19-003G	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	Phosphorus, ortho			10/19/2016
1610F19-003H	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	Total Organic Carbon (TOC)			10/20/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610F19

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610F19-003I	GW-013926-101816-DJB-103	10/18/2016 1:35:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F19-004A	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F19-004A	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F19-004B	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F19-004C	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	GC Analysis of Gaseous Samples		10/20/2016 3:36:10PM	10/21/2016
1610F19-004D	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	Total Metals by ICP/MS		10/25/2016 4:45:00PM	10/26/2016
1610F19-004E	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	Alkalinity by SM2320B			10/20/2016
1610F19-004F	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	ION SCAN			10/19/2016
1610F19-004G	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	Phosphorus, ortho			10/19/2016
1610F19-004H	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	Total Organic Carbon (TOC)			10/20/2016
1610F19-004I	GW-013926-101816-DJB-104	10/18/2016 3:00:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F19-005A	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F19-005A	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F19-005B	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F19-005C	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	GC Analysis of Gaseous Samples		10/20/2016 3:36:10PM	10/21/2016
1610F19-005D	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	Total Metals by ICP/MS		10/25/2016 4:45:00PM	10/26/2016
1610F19-005E	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	Alkalinity by SM2320B			10/20/2016
1610F19-005F	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	ION SCAN			10/19/2016
1610F19-005G	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	Phosphorus, ortho			10/19/2016
1610F19-005H	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	Total Organic Carbon (TOC)			10/20/2016
1610F19-005I	GW-013926-101816-SAG-007	10/18/2016 3:25:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F19-006A	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F19-006A	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F19-006B	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F19-006C	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	GC Analysis of Gaseous Samples		10/20/2016 3:36:10PM	10/21/2016
1610F19-006D	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	Total Metals by ICP/MS		10/25/2016 4:45:00PM	10/26/2016
1610F19-006E	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	Alkalinity by SM2320B			10/20/2016
1610F19-006F	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	ION SCAN			10/19/2016
1610F19-006G	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	Phosphorus, ortho			10/19/2016

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610F19

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610F19-006H	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	Total Organic Carbon (TOC)			10/20/2016
1610F19-006I	GW-013926-101816-SAG-008	10/18/2016 3:45:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F19-007A	TRIP BLANK	10/19/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F19-007A	TRIP BLANK	10/19/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231386

Sample ID: **MB-231386** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327928**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **231386** Analysis Date: **10/20/2016** Seq No: **7111998**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9.0									
Ethylene	BRL	7.0									
Methane	BRL	4.0									

Sample ID: **LCS-231386** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327928**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **231386** Analysis Date: **10/20/2016** Seq No: **7111999**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	120.9	9.0	200.0		60.4	40.9	115				
Ethylene	81.11	7.0	200.0		40.6	26.8	115				
Methane	134.4	4.0	200.0		67.2	45.9	115				

Sample ID: **LCSD-231386** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327928**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **231386** Analysis Date: **10/20/2016** Seq No: **7112000**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	124.4	9.0	200.0		62.2	40.9	115	120.9	2.88	20	
Ethylene	85.02	7.0	200.0		42.5	26.8	115	81.11	4.70	20	
Methane	137.2	4.0	200.0		68.6	45.9	115	134.4	2.03	20	

Sample ID: **1610E47-017BMS** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327928**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **231386** Analysis Date: **10/20/2016** Seq No: **7112009**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	118.1	9.0	200.0		59.1	40.5	115				
Ethylene	81.77	7.0	200.0		40.9	23	115				
Methane	127.2	4.0	200.0		63.6	40	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231386

Sample ID: **1610E47-017BMSD** Client ID:
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**
Units: **ug/L** BatchID: **231386**
Prep Date: **10/20/2016** Analysis Date: **10/20/2016**
Run No: **327928** Seq No: **7112010**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	119.4	9.0	200.0		59.7	40.5	115	118.1	1.02	20	
Ethylene	83.69	7.0	200.0		41.8	23	115	81.77	2.31	20	
Methane	129.8	4.0	200.0		64.9	40	115	127.2	2.02	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231392

Sample ID: **MB-231392** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328064**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231392** Analysis Date: **10/20/2016** Seq No: **7116567**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.764	0	5.000		115	64.9	131				

Sample ID: **LCS-231392** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328064**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231392** Analysis Date: **10/20/2016** Seq No: **7116568**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1250	0.020	0.1000		125	60	140				
Surr: 4-Bromofluorobenzene	5.592	0	5.000		112	64.9	131				

Sample ID: **LCSD-231392** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328064**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231392** Analysis Date: **10/20/2016** Seq No: **7116569**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1220	0.020	0.1000		122	60	140	0.1250	2.43	20	
Surr: 4-Bromofluorobenzene	5.458	0	5.000		109	64.9	131	5.592	0	0	

Sample ID: **1610E88-003AMS** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328064**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231392** Analysis Date: **10/21/2016** Seq No: **7116589**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09200	0.020	0.1000		92.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.032	0	5.000		101	64.9	131				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **MB-231478** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327968**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/20/2016** Seq No: **7113236**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2,4-Trimethylbenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3,5-Trimethylbenzene	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **MB-231478**	Client ID:		Units: **ug/L**	Prep Date: **10/20/2016**	Run No: **327968**
SampleType: **MBLK**	TestCode: **Volatile Organic Compounds by GC/MS**	**SW8260B**	BatchID: **231478**	Analysis Date: **10/20/2016**	Seq No: **7113236**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	49.05	0	50.00		98.1	70	130				
Surr: Dibromofluoromethane	48.46	0	50.00		96.9	70	130				
Surr: Toluene-d8	48.25	0	50.00		96.5	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **LCS-231478** Client ID:
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **231478**
Prep Date: **10/20/2016** Analysis Date: **10/24/2016**
Run No: **328109** Seq No: **7117576**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.18	1.0	50.00		108	70	130				
1,1,2,2-Tetrachloroethane	47.42	1.0	50.00		94.8	70	130				
1,1,2-Trichloroethane	50.63	1.0	50.00		101	70	130				
1,1-Dichloroethane	51.80	1.0	50.00		104	70	130				
1,1-Dichloroethene	54.98	2.0	50.00		110	60	140				
1,2,4-Trichlorobenzene	51.59	1.0	50.00		103	70	130				
1,2,4-Trimethylbenzene	49.22	1.0	50.00		98.4	70	130				
1,2-Dibromo-3-chloropropane	51.21	1.0	50.00		102	70	130				
1,2-Dichlorobenzene	47.25	1.0	50.00		94.5	70	130				
1,2-Dichloroethane	51.15	1.0	50.00		102	70	130				
1,2-Dichloropropane	46.86	1.0	50.00		93.7	70	130				
1,3,5-Trimethylbenzene	47.73	1.0	50.00		95.5	70	130				
1,3-Dichlorobenzene	45.70	1.0	50.00		91.4	70	130				
1,4-Dichlorobenzene	43.76	1.0	50.00		87.5	70	130				
Benzene	51.28	1.0	50.00		103	70	130				
Bromodichloromethane	47.99	1.0	50.00		96.0	70	130				
Bromoform	46.53	1.0	50.00		93.1	70	130				
Carbon tetrachloride	52.85	2.0	50.00		106	70	130				
Chlorobenzene	45.53	1.0	50.00		91.1	70	130				
Chloroform	51.15	1.0	50.00		102	70	130				
cis-1,2-Dichloroethene	51.24	1.0	50.00		102	70	130				
cis-1,3-Dichloropropene	52.56	1.0	50.00		105	70	130				
Dibromochloromethane	46.11	1.0	50.00		92.2	70	130				
Ethylbenzene	51.26	1.0	50.00		103	70	130				
Isopropylbenzene	47.50	1.0	50.00		95.0	70	130				
Methylene chloride	55.12	5.0	50.00		110	70	130				
Styrene	54.26	1.0	50.00		109	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **LCS-231478** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328109**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/24/2016** Seq No: **7117576**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	45.25	1.0	50.00		90.5	70	130				
Toluene	50.47	1.0	50.00		101	70	130				
trans-1,2-Dichloroethene	49.99	2.0	50.00		100.0	70	130				
trans-1,3-Dichloropropene	57.01	2.0	50.00		114	70	130				
Trichloroethene	45.90	1.0	50.00		91.8	70	130				
Vinyl chloride	58.32	1.0	50.00		117	70	130				
Xylenes, Total	159.1	1.0	150.0		106	70	130				
Surr: 4-Bromofluorobenzene	53.69	0	50.00		107	70	130				
Surr: Dibromofluoromethane	49.83	0	50.00		99.7	70	130				
Surr: Toluene-d8	50.61	0	50.00		101	70	130				

Sample ID: **1610F27-001AMS** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327968**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/20/2016** Seq No: **7113240**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.23	1.0	50.00		106	64.5	140				
1,1,2,2-Tetrachloroethane	32.08	1.0	50.00		64.2	66.5	128				S
1,1,2-Trichloroethane	38.90	1.0	50.00		77.8	73.9	127				
1,1-Dichloroethane	39.42	1.0	50.00		78.8	61.6	127				
1,1-Dichloroethene	44.46	2.0	50.00		88.9	60	150				
1,2,4-Trichlorobenzene	42.85	1.0	50.00		85.7	60.4	131				
1,2,4-Trimethylbenzene	41.67	1.0	50.00		83.3	70.2	129				
1,2-Dibromo-3-chloropropane	39.25	1.0	50.00		78.5	50.2	131				
1,2-Dichlorobenzene	44.03	1.0	50.00		88.1	72	123				
1,2-Dichloroethane	48.01	1.0	50.00		96.0	66.5	133				
1,2-Dichloropropane	39.78	1.0	50.00		79.6	73	126				
1,3,5-Trimethylbenzene	41.61	1.0	50.00		83.2	66.1	133				
1,3-Dichlorobenzene	43.15	1.0	50.00		86.3	72.5	123				

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **1610F27-001AMS** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327968**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/20/2016** Seq No: **7113240**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	43.46	1.0	50.00		86.9	71.1	121				
Benzene	43.03	1.0	50.00		86.1	70.1	132				
Bromodichloromethane	46.94	1.0	50.00		93.9	62.2	131				
Bromoform	47.24	1.0	50.00		94.5	50.5	138				
Carbon tetrachloride	59.27	2.0	50.00		119	60	149				
Chlorobenzene	47.80	1.0	50.00		95.6	70.9	131				
Chloroform	43.53	1.0	50.00		87.1	67.7	128				
cis-1,2-Dichloroethene	41.89	1.0	50.00		83.8	68.8	133				
cis-1,3-Dichloropropene	47.91	1.0	50.00		95.8	53.8	134				
Dibromochloromethane	47.68	1.0	50.00		95.4	57	135				
Ethylbenzene	47.70	1.0	50.00		95.4	77.8	129				
Isopropylbenzene	42.35	1.0	50.00		84.7	63	132				
Methylene chloride	36.78	5.0	50.00		73.6	60.5	124				
Styrene	47.33	1.0	50.00		94.7	73.3	133				
Tetrachloroethene	54.74	1.0	50.00		109	69.6	140				
Toluene	46.70	1.0	50.00		93.4	70.1	133				
trans-1,2-Dichloroethene	43.23	2.0	50.00		86.5	63.7	127				
trans-1,3-Dichloropropene	50.13	2.0	50.00		100	56.2	127				
Trichloroethene	51.77	1.0	50.00		104	70	136				
Vinyl chloride	48.02	1.0	50.00		96.0	56.8	141				
Xylenes, Total	146.4	1.0	150.0		97.6	74.7	133				
Surr: 4-Bromofluorobenzene	50.23	0	50.00		100	70	130				
Surr: Dibromofluoromethane	50.82	0	50.00		102	70	130				
Surr: Toluene-d8	48.13	0	50.00		96.3	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **1610F27-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327968**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/20/2016** Seq No: **7113242**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.16	1.0	50.00		108	64.5	140	53.23	1.73	20	
1,1,2,2-Tetrachloroethane	32.22	1.0	50.00		64.4	66.5	128	32.08	0.435	20	S
1,1,2-Trichloroethane	39.21	1.0	50.00		78.4	73.9	127	38.90	0.794	20	
1,1-Dichloroethane	39.71	1.0	50.00		79.4	61.6	127	39.42	0.733	20	
1,1-Dichloroethene	49.27	2.0	50.00		98.5	60	150	44.46	10.3	17.7	
1,2,4-Trichlorobenzene	41.83	1.0	50.00		83.7	60.4	131	42.85	2.41	24	
1,2,4-Trimethylbenzene	41.29	1.0	50.00		82.6	70.2	129	41.67	0.916	20	
1,2-Dibromo-3-chloropropane	38.62	1.0	50.00		77.2	50.2	131	39.25	1.62	19.5	
1,2-Dichlorobenzene	43.26	1.0	50.00		86.5	72	123	44.03	1.76	20	
1,2-Dichloroethane	48.14	1.0	50.00		96.3	66.5	133	48.01	0.270	20	
1,2-Dichloropropane	40.59	1.0	50.00		81.2	73	126	39.78	2.02	20	
1,3,5-Trimethylbenzene	40.72	1.0	50.00		81.4	66.1	133	41.61	2.16	20	
1,3-Dichlorobenzene	42.91	1.0	50.00		85.8	72.5	123	43.15	0.558	20	
1,4-Dichlorobenzene	43.11	1.0	50.00		86.2	71.1	121	43.46	0.809	20	
Benzene	43.52	1.0	50.00		87.0	70.1	132	43.03	1.13	20	
Bromodichloromethane	47.52	1.0	50.00		95.0	62.2	131	46.94	1.23	20	
Bromoform	47.70	1.0	50.00		95.4	50.5	138	47.24	0.969	17.9	
Carbon tetrachloride	59.91	2.0	50.00		120	60	149	59.27	1.07	20	
Chlorobenzene	47.28	1.0	50.00		94.6	70.9	131	47.80	1.09	20	
Chloroform	44.55	1.0	50.00		89.1	67.7	128	43.53	2.32	20	
cis-1,2-Dichloroethene	42.00	1.0	50.00		84.0	68.8	133	41.89	0.262	20	
cis-1,3-Dichloropropene	48.21	1.0	50.00		96.4	53.8	134	47.91	0.624	20	
Dibromochloromethane	46.80	1.0	50.00		93.6	57	135	47.68	1.86	20	
Ethylbenzene	47.62	1.0	50.00		95.2	77.8	129	47.70	0.168	20	
Isopropylbenzene	41.98	1.0	50.00		84.0	63	132	42.35	0.878	20	
Methylene chloride	37.37	5.0	50.00		74.7	60.5	124	36.78	1.59	17.4	
Styrene	46.74	1.0	50.00		93.5	73.3	133	47.33	1.25	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **1610F27-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327968**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/20/2016** Seq No: **7113242**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	54.34	1.0	50.00		109	69.6	140	54.74	0.733	20	
Toluene	47.08	1.0	50.00		94.2	70.1	133	46.70	0.810	20	
trans-1,2-Dichloroethene	43.81	2.0	50.00		87.6	63.7	127	43.23	1.33	20	
trans-1,3-Dichloropropene	51.63	2.0	50.00		103	56.2	127	50.13	2.95	20	
Trichloroethene	50.92	1.0	50.00		102	70	136	51.77	1.66	20	
Vinyl chloride	49.23	1.0	50.00		98.5	56.8	141	48.02	2.49	18.4	
Xylenes, Total	146.7	1.0	150.0		97.8	74.7	133	146.4	0.232	22.7	
Surr: 4-Bromofluorobenzene	51.45	0	50.00		103	70	130	50.23	0	0	
Surr: Dibromofluoromethane	52.35	0	50.00		105	70	130	50.82	0	0	
Surr: Toluene-d8	49.03	0	50.00		98.1	70	130	48.13	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231659

Sample ID: **MB-231659** Client ID:
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020A**
Units: **ug/L** Prep Date: **10/25/2016** Run No: **328361**
BatchID: **231659** Analysis Date: **10/26/2016** Seq No: **7124233**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.3920	5.00									J
Barium	BRL	10.0									
Cadmium	BRL	0.700									
Chromium	0.6530	5.00									J
Copper	BRL	2.00									
Iron	BRL	100									
Lead	0.2820	1.00									J
Manganese	0.8100	5.00									J
Selenium	0.8410	5.00									J

Sample ID: **LCS-231659** Client ID:
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020A**
Units: **ug/L** Prep Date: **10/25/2016** Run No: **328361**
BatchID: **231659** Analysis Date: **10/26/2016** Seq No: **7124234**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	99.16	5.00	100.0	0.3920	98.8	80	120				
Barium	98.95	10.0	100.0		99.0	80	120				
Cadmium	99.60	0.700	100.0		99.6	80	120				
Chromium	99.19	5.00	100.0	0.6530	98.5	80	120				
Copper	98.22	2.00	100.0		98.2	80	120				
Iron	999.7	100	1000		100.0	80	120				
Lead	100.3	1.00	100.0	0.2820	100	80	120				
Manganese	99.82	5.00	100.0	0.8100	99.0	80	120				
Selenium	100.5	5.00	100.0	0.8410	99.7	80	120				

Sample ID: **1610F19-001DMS** Client ID: **GW-013926-101816-DJB-101**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A**
Units: **ug/L** Prep Date: **10/25/2016** Run No: **328361**
BatchID: **231659** Analysis Date: **10/26/2016** Seq No: **7124236**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231659

Sample ID: **1610F19-001DMS** Client ID: **GW-013926-101816-DJB-101** Units: **ug/L** Prep Date: **10/25/2016** Run No: **328361**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231659** Analysis Date: **10/26/2016** Seq No: **7124236**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	96.08	5.00	100.0	0.9110	95.2	75	125				
Barium	271.3	10.0	100.0	172.6	98.7	75	125				
Cadmium	98.53	0.700	100.0	0.3130	98.2	75	125				
Chromium	97.17	5.00	100.0	1.733	95.4	75	125				
Copper	94.64	2.00	100.0	1.494	93.1	75	125				
Iron	1287	100	1000	402.1	88.5	75	125				
Lead	100.1	1.00	100.0	1.048	99.1	75	125				
Manganese	130.8	5.00	100.0	32.64	98.2	75	125				
Selenium	96.33	5.00	100.0	1.053	95.3	75	125				

Sample ID: **1610F19-001DMSD** Client ID: **GW-013926-101816-DJB-101** Units: **ug/L** Prep Date: **10/25/2016** Run No: **328361**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231659** Analysis Date: **10/26/2016** Seq No: **7124237**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	95.22	5.00	100.0	0.9110	94.3	75	125	96.08	0.899	20	
Barium	272.9	10.0	100.0	172.6	100	75	125	271.3	0.588	20	
Cadmium	98.19	0.700	100.0	0.3130	97.9	75	125	98.53	0.346	20	
Chromium	96.14	5.00	100.0	1.733	94.4	75	125	97.17	1.07	20	
Copper	93.74	2.00	100.0	1.494	92.2	75	125	94.64	0.956	20	
Iron	1281	100	1000	402.1	87.9	75	125	1287	0.467	20	
Lead	99.54	1.00	100.0	1.048	98.5	75	125	100.1	0.561	20	
Manganese	129.8	5.00	100.0	32.64	97.2	75	125	130.8	0.767	20	
Selenium	95.67	5.00	100.0	1.053	94.6	75	125	96.33	0.688	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231766

Sample ID: **MB-231766** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328323**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **231766** Analysis Date: **10/26/2016** Seq No: **7122818**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	49.28	0	50.00		98.6	83.1	115				
Surr: Dibromofluoromethane	45.42	0	50.00		90.8	80.6	123				
Surr: Toluene-d8	50.20	0	50.00		100	85	115				

Sample ID: **LCS-231766** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328323**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **231766** Analysis Date: **10/26/2016** Seq No: **7122817**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.320	5.0	10.00		73.2	68.2	133				
Surr: 4-Bromofluorobenzene	52.25	0	50.00		104	83.1	115				
Surr: Dibromofluoromethane	44.12	0	50.00		88.2	80.6	123				
Surr: Toluene-d8	50.71	0	50.00		101	85	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231897

Sample ID: **MB-231897** Client ID: Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130266**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	4.784	0	5.000		95.7	64.9	131				

Sample ID: **LCS-231897** Client ID: Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130267**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09400	0.020	0.1000		94.0	60	140				
Surr: 4-Bromofluorobenzene	4.853	0	5.000		97.1	64.9	131				

Sample ID: **LCSD-231897** Client ID: Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130268**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.08600	0.020	0.1000		86.0	60	140	0.09400	8.89	20	
Surr: 4-Bromofluorobenzene	4.899	0	5.000		98.0	64.9	131	4.853	0	0	

Sample ID: **1610G57-004BMS** Client ID: Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130271**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.06637	0.020	0.0991		67.0	65.6	136				
Surr: 4-Bromofluorobenzene	4.955	0	4.953		100	64.9	131				

Sample ID: **1610G57-004BMSD** Client ID: Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **MSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130272**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.07380	0.020	0.1011		73.0	65.6	136	0.06637	10.6	20	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: 231897

Sample ID: **1610G57-004BMSD** Client ID:
SampleType: **MSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011**
Units: **ug/L** BatchID: **231897**
Prep Date: **10/28/2016** Analysis Date: **10/28/2016**
Run No: **328585** Seq No: **7130272**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	5.103	0	5.055		101	64.9	131	4.955	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: R327775

Sample ID: **MB-R327775** Client ID: Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108729**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R327775** Client ID: Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108730**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09860	0.0100	0.1000		98.6	90	110				

Sample ID: **1610F19-002GMS** Client ID: **GW-013926-101816-DJB-102** Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108750**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1160	0.0100	0.1000	0.01230	104	90	110				

Sample ID: **1610F19-005GMS** Client ID: **GW-013926-101816-SAG-007** Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108756**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1310	0.0100	0.1000	0.02890	102	90	110				

Sample ID: **1610F19-005GMSD** Client ID: **GW-013926-101816-SAG-007** Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108757**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1290	0.0100	0.1000	0.02890	100	90	110	0.1310	1.54	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: **R327835**

Sample ID: **MB-R327835** Client ID: Units: **mg/L** Prep Date: Run No: **327835**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R327835** Analysis Date: **10/20/2016** Seq No: **7110127**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R327835** Client ID: Units: **mg/L** Prep Date: Run No: **327835**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R327835** Analysis Date: **10/20/2016** Seq No: **7110128**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	125.0	3.00	125.0		100	75	125				

Sample ID: **1610F11-001ADUP** Client ID: Units: **mg/L** Prep Date: Run No: **327835**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R327835** Analysis Date: **10/20/2016** Seq No: **7110141**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	56.00	3.00						53.00	5.50	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: **R327893**

Sample ID: **MB-R327893** Client ID: Units: **mg/L** Prep Date: Run No: **327893**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R327893** Analysis Date: **10/20/2016** Seq No: **7111465**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R327893** Client ID: Units: **mg/L** Prep Date: Run No: **327893**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R327893** Analysis Date: **10/20/2016** Seq No: **7111464**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.43	1.00	25.00		102	90	110				

Sample ID: **1610F19-001HMS** Client ID: **GW-013926-101816-DJB-101** Units: **mg/L** Prep Date: Run No: **327893**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R327893** Analysis Date: **10/20/2016** Seq No: **7111473**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	24.89	1.00	25.00	0.4024	98.0	80	120				

Sample ID: **1610F19-001HMSD** Client ID: **GW-013926-101816-DJB-101** Units: **mg/L** Prep Date: Run No: **327893**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R327893** Analysis Date: **10/20/2016** Seq No: **7111474**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	24.43	1.00	25.00	0.4024	96.1	80	120	24.89	1.87	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: R328091

Sample ID: **MB-R328091** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117634**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R328091** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117635**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.060	0.020	1.000		106	90	110				

Sample ID: **1610D70-001AMS** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117668**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.200	0.020	1.000	0.2040	99.6	90	110				

Sample ID: **1610F37-004FMS** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117651**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9870	0.020	1.000		98.7	90	110				

Sample ID: **1610D70-001AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117637**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.170	0.020	1.000	0.2040	96.6	90	110	1.200	2.53	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: R328167

Sample ID: **MB-R328167** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119391**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	0.1307	1.0									J
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R328167** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119390**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	9.987	1.0	10.00	0.1307	98.6	90	110				
Nitrate	5.193	0.25	5.000		104	90	110				
Sulfate	25.70	1.0	25.00		103	90	110				

Sample ID: **1610E93-007AMS** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119413**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	11.83	1.0	10.00	2.929	89.1	90	110				S
Nitrate	4.851	0.25	5.000		97.0	90	110				
Sulfate	25.13	1.0	25.00	1.923	92.8	90	110				

Sample ID: **1610E94-007AMS** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119415**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	12.73	1.0	10.00	3.475	92.5	90	110				
Nitrate	4.945	0.25	5.000	0.03232	98.3	90	110				
Sulfate	25.24	1.0	25.00	1.002	96.9	90	110				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F19

ANALYTICAL QC SUMMARY REPORT

BatchID: **R328167**

Sample ID: **1610E93-007AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119414**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	11.74	1.0	10.00	2.929	88.1	90	110	11.83	0.827	20	S
Nitrate	4.820	0.25	5.000		96.4	90	110	4.851	0.635	20	
Sulfate	25.51	1.0	25.00	1.923	94.4	90	110	25.13	1.51	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 31, 2016

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1610F37

Analytical Environmental Services, Inc. received 7 samples on 10/19/2016 9:50:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1610F37

Date: 10/18/16 Page 1 of 1

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd. Ste 470 Duluth, GA 30096

PHONE: 770-441-0027

FAX: 770-441-2050

SAMPLED BY: Steven Grace

SIGNATURE: [signature]

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs	EDB	Total Metals	Diss. Metals	ortho Phos	N, NH3	Ions							REMARKS	No # of Containers
							PRESERVATION (See codes)						4								
1	GW-013926-101816-SAG-001	10/18/16		X		GW	2	2	1	1	1	1	1								9
2	" " " " -002			X			2	2	1	1	1	1	1								9
3	" " " " -003			X			2	2	1	1	1	1	1								9
4	" " " " -004			X			2	2	1	1	1	1	1								9
5	" " " " -005			X			2	2	1	1	1	1	1								9
6	" " " " -006			X			2	2	1	1	1	1	1								9
7	Trip Blank						2														2
8																					
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1: [signature]	10/18/16 1730	1: [signature]	10/19/16 9:50
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS: See SSOW

2.4°C

SHIPMENT METHOD:
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Aquatech
PROJECT #: 13926
SITE ADDRESS: Greer, SC
SEND REPORT TO: See SSOW
INVOICE TO: (IF DIFFERENT FROM ABOVE) See SSOW
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers: 58

Turnaround Time Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? Fax?
DATA PACKAGE: I ○ II ○ III ○ IV ○

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY. IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1610F37

Case Narrative

Sample Receiving Nonconformance:

Collection times were not listed on the Chain of Custody for all samples except -007A. Samples were logged in using the information present on the sample bottle labels.

Micro-extractable VOC Analysis by Method 8011:

Matrix spike duplicate analyses were not performed with Batch 231393 due to insufficient sample volume.

Samples 1610F37-001B, -002B, -003B, -004B, -005B, -006B as received did not meet method specified preservation requirements of pH <2

Volatile Organic Compounds Analysis by Method 8260B:

Tetrachloroethene value for samples 1610F37-001A, -002A, & -003A is "E" qualified indicating an estimated value over linear calibration range. Sample could not be diluted and reanalyzed due to insufficient vials received by laboratory.

Matrix spike and/or matrix spike duplicate analyses were not performed with Batch 231766 due to insufficient sample volume.

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-001
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 8:45:00 AM
Lab ID:	1610F37-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 19:29	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:29	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 19:29	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 19:29	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 19:29	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 19:29	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 19:29	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 19:29	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 19:29	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 19:29	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231478	1	10/20/2016 19:29	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 19:29	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 19:29	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 19:29	JE
Methyl tert-butyl ether	1.6		0.22	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 19:29	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 19:29	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 19:29	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-001
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 8:45:00 AM
Lab ID:	1610F37-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	810	E	0.29	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 19:29	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 19:29	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 19:29	JE
Trichloroethene	4.3		0.35	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 19:29	JE
Surr: 4-Bromofluorobenzene	103		0	70-130	%REC	231478	1	10/20/2016 19:29	JE
Surr: Dibromofluoromethane	98.8		0	70-130	%REC	231478	1	10/20/2016 19:29	JE
Surr: Toluene-d8	96.7		0	70-130	%REC	231478	1	10/20/2016 19:29	JE
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	17400		5.87	50.0	ug/L	231579	1	10/25/2016 20:57	JS
Antimony	BRL		0.151	5.00	ug/L	231579	1	10/25/2016 20:57	JS
Arsenic	7.81		0.125	5.00	ug/L	231579	1	10/25/2016 20:57	JS
Barium	677		0.180	10.0	ug/L	231579	1	10/25/2016 20:57	JS
Beryllium	1.22		0.178	1.00	ug/L	231579	1	10/25/2016 20:57	JS
Cadmium	0.198	J	0.184	0.700	ug/L	231579	1	10/25/2016 20:57	JS
Calcium	1690		12.7	100	ug/L	231579	1	10/25/2016 20:57	JS
Chromium	27.9		0.137	5.00	ug/L	231579	1	10/25/2016 20:57	JS
Cobalt	6.18		0.155	5.00	ug/L	231579	1	10/25/2016 20:57	JS
Copper	6.32		0.228	2.00	ug/L	231579	1	10/25/2016 20:57	JS
Iron	13800		31.9	100	ug/L	231579	1	10/25/2016 20:57	JS
Lead	11.5		0.143	1.00	ug/L	231579	1	10/25/2016 20:57	JS
Magnesium	6200		1.90	100	ug/L	231579	1	10/25/2016 20:57	JS
Manganese	330		0.508	5.00	ug/L	231579	1	10/25/2016 20:57	JS
Nickel	19.3		0.132	5.00	ug/L	231579	1	10/25/2016 20:57	JS
Potassium	5500		2.55	100	ug/L	231579	1	10/25/2016 20:57	JS
Selenium	BRL		0.159	5.00	ug/L	231579	1	10/25/2016 20:57	JS
Silver	0.0440	J	0.0163	1.00	ug/L	231579	1	10/25/2016 20:57	JS
Sodium	52800		14.2	500	ug/L	231579	1	10/25/2016 20:57	JS
Thallium	0.297	J	0.127	1.00	ug/L	231579	1	10/25/2016 20:57	JS
Vanadium	103		0.130	5.00	ug/L	231579	1	10/25/2016 20:57	JS
Zinc	35.0		3.92	10.0	ug/L	231579	1	10/26/2016 19:33	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	12.0		0.380	1.00	mg/L	R327775	100	10/19/2016 17:13	AM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-001
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 8:45:00 AM
Lab ID:	1610F37-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:25	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231393	1	10/21/2016 17:43	AW
Surr: 4-Bromofluorobenzene	109		0	64.9-131	%REC	231393	1	10/21/2016 17:43	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00007	0.00020	mg/L	231535	1	10/24/2016 17:01	JR
ION SCAN SW9056A									
Nitrate	4.7		0.024	0.25	mg/L	R328167	1	10/19/2016 17:32	JW
Sulfate	18		0.10	1.0	mg/L	R328167	1	10/19/2016 17:32	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	231414	1	10/21/2016 05:02	JS
Manganese	19.8		0.508	5.00	ug/L	231414	1	10/21/2016 05:02	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 19:17	NH
Surr: 4-Bromofluorobenzene	97.5		0	83.1-115	%REC	231766	1	10/26/2016 19:17	NH
Surr: Dibromofluoromethane	93		0	80.6-123	%REC	231766	1	10/26/2016 19:17	NH
Surr: Toluene-d8	105		0	85-115	%REC	231766	1	10/26/2016 19:17	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-002
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 10:05:00 AM
Lab ID:	1610F37-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 19:53	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:53	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 19:53	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 19:53	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 19:53	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 19:53	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 19:53	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 19:53	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 19:53	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 19:53	JE
cis-1,2-Dichloroethene	2.0		0.27	1.0	ug/L	231478	1	10/20/2016 19:53	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 19:53	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 19:53	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 19:53	JE
Methyl tert-butyl ether	1.2		0.22	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 19:53	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 19:53	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 19:53	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-002
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 10:05:00 AM
Lab ID:	1610F37-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	940	E	0.29	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 19:53	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 19:53	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 19:53	JE
Trichloroethene	5.4		0.35	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 19:53	JE
Surr: 4-Bromofluorobenzene	101		0	70-130	%REC	231478	1	10/20/2016 19:53	JE
Surr: Dibromofluoromethane	99.2		0	70-130	%REC	231478	1	10/20/2016 19:53	JE
Surr: Toluene-d8	97.6		0	70-130	%REC	231478	1	10/20/2016 19:53	JE
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	7640		5.87	50.0	ug/L	231579	1	10/25/2016 21:03	JS
Antimony	BRL		0.151	5.00	ug/L	231579	1	10/25/2016 21:03	JS
Arsenic	1.14	J	0.125	5.00	ug/L	231579	1	10/25/2016 21:03	JS
Barium	284		0.180	10.0	ug/L	231579	1	10/25/2016 21:03	JS
Beryllium	1.03		0.178	1.00	ug/L	231579	1	10/25/2016 21:03	JS
Cadmium	0.221	J	0.184	0.700	ug/L	231579	1	10/25/2016 21:03	JS
Calcium	3000		12.7	100	ug/L	231579	1	10/25/2016 21:03	JS
Chromium	20.8		0.137	5.00	ug/L	231579	1	10/25/2016 21:03	JS
Cobalt	3.49	J	0.155	5.00	ug/L	231579	1	10/25/2016 21:03	JS
Copper	7.66		0.228	2.00	ug/L	231579	1	10/25/2016 21:03	JS
Iron	9850		31.9	100	ug/L	231579	1	10/25/2016 21:03	JS
Lead	7.30		0.143	1.00	ug/L	231579	1	10/25/2016 21:03	JS
Magnesium	2360		1.90	100	ug/L	231579	1	10/25/2016 21:03	JS
Manganese	89.2		0.508	5.00	ug/L	231579	1	10/25/2016 21:03	JS
Nickel	7.09		0.132	5.00	ug/L	231579	1	10/25/2016 21:03	JS
Potassium	2590		2.55	100	ug/L	231579	1	10/25/2016 21:03	JS
Selenium	0.166	J	0.159	5.00	ug/L	231579	1	10/25/2016 21:03	JS
Silver	0.162	J	0.0163	1.00	ug/L	231579	1	10/25/2016 21:03	JS
Sodium	26500		14.2	500	ug/L	231579	1	10/25/2016 21:03	JS
Thallium	BRL		0.127	1.00	ug/L	231579	1	10/25/2016 21:03	JS
Vanadium	25.8		0.130	5.00	ug/L	231579	1	10/25/2016 21:03	JS
Zinc	18.2		3.92	10.0	ug/L	231579	1	10/26/2016 19:46	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	1.43		0.0760	0.200	mg/L	R327775	20	10/19/2016 17:14	AM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-002
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 10:05:00 AM
Lab ID:	1610F37-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:27	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231393	1	10/21/2016 20:03	AW
Surr: 4-Bromofluorobenzene	98.5		0	64.9-131	%REC	231393	1	10/21/2016 20:03	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	0.00007	J	0.00007	0.00020	mg/L	231535	1	10/24/2016 17:03	JR
ION SCAN SW9056A									
Nitrate	4.9		0.024	0.25	mg/L	R328167	1	10/19/2016 18:01	JW
Sulfate	10		0.10	1.0	mg/L	R328167	1	10/19/2016 18:01	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	34.2	J	31.9	100	ug/L	231414	1	10/21/2016 05:27	JS
Manganese	11.2		0.508	5.00	ug/L	231414	1	10/21/2016 05:27	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 19:43	NH
Surr: 4-Bromofluorobenzene	95.6		0	83.1-115	%REC	231766	1	10/26/2016 19:43	NH
Surr: Dibromofluoromethane	93.6		0	80.6-123	%REC	231766	1	10/26/2016 19:43	NH
Surr: Toluene-d8	104		0	85-115	%REC	231766	1	10/26/2016 19:43	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-003
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 11:30:00 AM
Lab ID:	1610F37-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 20:17	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 20:17	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 20:17	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 20:17	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 20:17	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 20:17	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 20:17	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 20:17	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 20:17	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 20:17	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231478	1	10/20/2016 20:17	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 20:17	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 20:17	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 20:17	JE
Methyl tert-butyl ether	1.6		0.22	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 20:17	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-003
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 11:30:00 AM
Lab ID:	1610F37-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 20:17	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Tetrachloroethene	570	E	0.29	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 20:17	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 20:17	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 20:17	JE
Trichloroethene	3.3		0.35	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 20:17	JE
Surr: 4-Bromofluorobenzene	100		0	70-130	%REC	231478	1	10/20/2016 20:17	JE
Surr: Dibromofluoromethane	100		0	70-130	%REC	231478	1	10/20/2016 20:17	JE
Surr: Toluene-d8	95.9		0	70-130	%REC	231478	1	10/20/2016 20:17	JE
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	4590		5.87	50.0	ug/L	231579	1	10/25/2016 21:10	JS
Antimony	0.256	J	0.151	5.00	ug/L	231579	1	10/25/2016 21:10	JS
Arsenic	4.05	J	0.125	5.00	ug/L	231579	1	10/25/2016 21:10	JS
Barium	179		0.180	10.0	ug/L	231579	1	10/25/2016 21:10	JS
Beryllium	0.337	J	0.178	1.00	ug/L	231579	1	10/25/2016 21:10	JS
Cadmium	0.388	J	0.184	0.700	ug/L	231579	1	10/25/2016 21:10	JS
Calcium	1490		12.7	100	ug/L	231579	1	10/25/2016 21:10	JS
Chromium	9.39		0.137	5.00	ug/L	231579	1	10/25/2016 21:10	JS
Cobalt	2.16	J	0.155	5.00	ug/L	231579	1	10/25/2016 21:10	JS
Copper	2.01		0.228	2.00	ug/L	231579	1	10/25/2016 21:10	JS
Iron	3580		31.9	100	ug/L	231579	1	10/25/2016 21:10	JS
Lead	3.28		0.143	1.00	ug/L	231579	1	10/25/2016 21:10	JS
Magnesium	1960		1.90	100	ug/L	231579	1	10/25/2016 21:10	JS
Manganese	276		0.508	5.00	ug/L	231579	1	10/25/2016 21:10	JS
Nickel	6.13		0.132	5.00	ug/L	231579	1	10/25/2016 21:10	JS
Potassium	2100		2.55	100	ug/L	231579	1	10/25/2016 21:10	JS
Selenium	0.260	J	0.159	5.00	ug/L	231579	1	10/25/2016 21:10	JS
Silver	0.0220	J	0.0163	1.00	ug/L	231579	1	10/25/2016 21:10	JS
Sodium	39600		14.2	500	ug/L	231579	1	10/25/2016 21:10	JS
Thallium	BRL		0.127	1.00	ug/L	231579	1	10/25/2016 21:10	JS
Vanadium	56.6		0.130	5.00	ug/L	231579	1	10/25/2016 21:10	JS
Zinc	14.0		3.92	10.0	ug/L	231579	1	10/26/2016 20:18	JS
Phosphorus, ortho E365.1									

Qualifiers:

*	Value exceeds maximum contaminant level
BRL	Not detected at MDL
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated method blank
NC	Not confirmed
E	E timated value above quantitation range
S	S ike Recovery outside limits due to matrix
J	E timated value detected below Reporting Limit
>	G eater than Result value
<	l ess than Result value
Narr	ee case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-003
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 11:30:00 AM
Lab ID:	1610F37-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	6.40		0.380	1.00	mg/L	R327775	100	10/19/2016 17:15	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.045		0.010	0.020	mg/L	R328091	1	10/24/2016 11:28	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.003	0.020	ug/L	231393	1	10/21/2016 20:32	AW
Surr: 4-Bromofluorobenzene	96.9		0	64.9-131	%REC	231393	1	10/21/2016 20:32	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00007	0.00020	mg/L	231535	1	10/24/2016 17:09	JR
ION SCAN SW9056A									
Nitrate	5.0		0.024	0.25	mg/L	R328167	1	10/19/2016 18:16	JW
Sulfate	8.2		0.10	1.0	mg/L	R328167	1	10/19/2016 18:16	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	231414	1	10/21/2016 05:33	JS
Manganese	26.0		0.508	5.00	ug/L	231414	1	10/21/2016 05:33	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 20:10	NH
Surr: 4-Bromofluorobenzene	97.2		0	83.1-115	%REC	231766	1	10/26/2016 20:10	NH
Surr: Dibromofluoromethane	94.4		0	80.6-123	%REC	231766	1	10/26/2016 20:10	NH
Surr: Toluene-d8	104		0	85-115	%REC	231766	1	10/26/2016 20:10	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-004
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 12:55:00 PM
Lab ID:	1610F37-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 20:41	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 20:41	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 20:41	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 20:41	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 20:41	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 20:41	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 20:41	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 20:41	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 20:41	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 20:41	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231478	1	10/20/2016 20:41	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 20:41	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 20:41	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 20:41	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 20:41	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 20:41	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 20:41	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-004
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 12:55:00 PM
Lab ID:	1610F37-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	15		0.29	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 20:41	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 20:41	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 20:41	JE
Trichloroethene	BRL		0.35	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 20:41	JE
Surr: 4-Bromofluorobenzene	99.1		0	70-130	%REC	231478	1	10/20/2016 20:41	JE
Surr: Dibromofluoromethane	99.3		0	70-130	%REC	231478	1	10/20/2016 20:41	JE
Surr: Toluene-d8	96.2		0	70-130	%REC	231478	1	10/20/2016 20:41	JE
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	303		5.87	50.0	ug/L	231579	1	10/25/2016 21:16	JS
Antimony	BRL		0.151	5.00	ug/L	231579	1	10/25/2016 21:16	JS
Arsenic	BRL		0.125	5.00	ug/L	231579	1	10/25/2016 21:16	JS
Barium	170		0.180	10.0	ug/L	231579	1	10/25/2016 21:16	JS
Beryllium	0.283	J	0.178	1.00	ug/L	231579	1	10/25/2016 21:16	JS
Cadmium	0.464	J	0.184	0.700	ug/L	231579	1	10/25/2016 21:16	JS
Calcium	1130		12.7	100	ug/L	231579	1	10/25/2016 21:16	JS
Chromium	1.10	J	0.137	5.00	ug/L	231579	1	10/25/2016 21:16	JS
Cobalt	6.87		0.155	5.00	ug/L	231579	1	10/25/2016 21:16	JS
Copper	0.606	J	0.228	2.00	ug/L	231579	1	10/25/2016 21:16	JS
Iron	201		31.9	100	ug/L	231579	1	10/25/2016 21:16	JS
Lead	1.12		0.143	1.00	ug/L	231579	1	10/25/2016 21:16	JS
Magnesium	2230		1.90	100	ug/L	231579	1	10/25/2016 21:16	JS
Manganese	419		0.508	5.00	ug/L	231579	1	10/25/2016 21:16	JS
Nickel	4.23	J	0.132	5.00	ug/L	231579	1	10/25/2016 21:16	JS
Potassium	4270		2.55	100	ug/L	231579	1	10/25/2016 21:16	JS
Selenium	0.508	J	0.159	5.00	ug/L	231579	1	10/25/2016 21:16	JS
Silver	BRL		0.0163	1.00	ug/L	231579	1	10/25/2016 21:16	JS
Sodium	5350		14.2	500	ug/L	231579	1	10/25/2016 21:16	JS
Thallium	0.573	J	0.127	1.00	ug/L	231579	1	10/25/2016 21:16	JS
Vanadium	BRL		0.130	5.00	ug/L	231579	1	10/25/2016 21:16	JS
Zinc	10.0		3.92	10.0	ug/L	231579	1	10/26/2016 20:24	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	BRL		0.00380	0.0100	mg/L	R327775	1	10/19/2016 16:57	AM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-004
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 12:55:00 PM
Lab ID:	1610F37-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:30	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231393	1	10/21/2016 21:01	AW
Surr: 4-Bromofluorobenzene	93.6		0	64.9-131	%REC	231393	1	10/21/2016 21:01	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00007	0.00020	mg/L	231535	1	10/24/2016 16:52	JR
ION SCAN SW9056A									
Nitrate	1.6		0.024	0.25	mg/L	R328167	1	10/19/2016 19:15	JW
Sulfate	7.8		0.10	1.0	mg/L	R328167	1	10/19/2016 19:15	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	39.9	J	31.9	100	ug/L	231414	1	10/21/2016 05:40	JS
Manganese	420		0.508	5.00	ug/L	231414	1	10/21/2016 05:40	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 17:59	NH
Surr: 4-Bromofluorobenzene	96.8		0	83.1-115	%REC	231766	1	10/26/2016 17:59	NH
Surr: Dibromofluoromethane	92.9		0	80.6-123	%REC	231766	1	10/26/2016 17:59	NH
Surr: Toluene-d8	103		0	85-115	%REC	231766	1	10/26/2016 17:59	NH

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-005
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 1:05:00 PM
Lab ID:	1610F37-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 18:41	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 18:41	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 18:41	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 18:41	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 18:41	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 18:41	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 18:41	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 18:41	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 18:41	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 18:41	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231478	1	10/20/2016 18:41	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 18:41	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 18:41	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 18:41	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 18:41	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 18:41	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 18:41	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-005
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 1:05:00 PM
Lab ID:	1610F37-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	9.9		0.29	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 18:41	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 18:41	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 18:41	JE
Trichloroethene	BRL		0.35	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 18:41	JE
Surr: 4-Bromofluorobenzene	99.8		0	70-130	%REC	231478	1	10/20/2016 18:41	JE
Surr: Dibromofluoromethane	98		0	70-130	%REC	231478	1	10/20/2016 18:41	JE
Surr: Toluene-d8	96.1		0	70-130	%REC	231478	1	10/20/2016 18:41	JE
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	307		5.87	50.0	ug/L	231579	1	10/25/2016 21:22	JS
Antimony	BRL		0.151	5.00	ug/L	231579	1	10/25/2016 21:22	JS
Arsenic	BRL		0.125	5.00	ug/L	231579	1	10/25/2016 21:22	JS
Barium	170		0.180	10.0	ug/L	231579	1	10/25/2016 21:22	JS
Beryllium	0.310	J	0.178	1.00	ug/L	231579	1	10/25/2016 21:22	JS
Cadmium	0.475	J	0.184	0.700	ug/L	231579	1	10/25/2016 21:22	JS
Calcium	1180		12.7	100	ug/L	231579	1	10/25/2016 21:22	JS
Chromium	1.23	J	0.137	5.00	ug/L	231579	1	10/25/2016 21:22	JS
Cobalt	6.85		0.155	5.00	ug/L	231579	1	10/25/2016 21:22	JS
Copper	1.41	J	0.228	2.00	ug/L	231579	1	10/25/2016 21:22	JS
Iron	194		31.9	100	ug/L	231579	1	10/25/2016 21:22	JS
Lead	1.17		0.143	1.00	ug/L	231579	1	10/25/2016 21:22	JS
Magnesium	2200		1.90	100	ug/L	231579	1	10/25/2016 21:22	JS
Manganese	421		0.508	5.00	ug/L	231579	1	10/25/2016 21:22	JS
Nickel	4.25	J	0.132	5.00	ug/L	231579	1	10/25/2016 21:22	JS
Potassium	4370		2.55	100	ug/L	231579	1	10/25/2016 21:22	JS
Selenium	0.572	J	0.159	5.00	ug/L	231579	1	10/25/2016 21:22	JS
Silver	BRL		0.0163	1.00	ug/L	231579	1	10/25/2016 21:22	JS
Sodium	5410		14.2	500	ug/L	231579	1	10/25/2016 21:22	JS
Thallium	0.578	J	0.127	1.00	ug/L	231579	1	10/25/2016 21:22	JS
Vanadium	1.67	J	0.130	5.00	ug/L	231579	1	10/25/2016 21:22	JS
Zinc	10.1		3.92	10.0	ug/L	231579	1	10/26/2016 20:31	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00602	J	0.00380	0.0100	mg/L	R327775	1	10/19/2016 16:58	AM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-005
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 1:05:00 PM
Lab ID:	1610F37-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:34	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231393	1	10/21/2016 21:30	AW
Surr: 4-Bromofluorobenzene	94.6		0	64.9-131	%REC	231393	1	10/21/2016 21:30	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00007	0.00020	mg/L	231535	1	10/24/2016 17:11	JR
ION SCAN SW9056A									
Nitrate	1.6		0.024	0.25	mg/L	R328169	1	10/19/2016 21:27	JW
Sulfate	7.4		0.10	1.0	mg/L	R328169	1	10/19/2016 21:27	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	231414	1	10/21/2016 05:46	JS
Manganese	442		0.508	5.00	ug/L	231414	1	10/21/2016 05:46	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 18:25	NH
Surr: 4-Bromofluorobenzene	95.7		0	83.1-115	%REC	231766	1	10/26/2016 18:25	NH
Surr: Dibromofluoromethane	93		0	80.6-123	%REC	231766	1	10/26/2016 18:25	NH
Surr: Toluene-d8	104		0	85-115	%REC	231766	1	10/26/2016 18:25	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 2:10:00 PM
Lab ID:	1610F37-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 19:05	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:05	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 19:05	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 19:05	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 19:05	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 19:05	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 19:05	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 19:05	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 19:05	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 19:05	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231478	1	10/20/2016 19:05	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 19:05	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 19:05	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 19:05	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 19:05	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 19:05	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 19:05	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 2:10:00 PM
Lab ID:	1610F37-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	45		0.29	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 19:05	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 19:05	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 19:05	JE
Trichloroethene	BRL		0.35	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 19:05	JE
Surr: 4-Bromofluorobenzene	99.5		0	70-130	%REC	231478	1	10/20/2016 19:05	JE
Surr: Dibromofluoromethane	96.7		0	70-130	%REC	231478	1	10/20/2016 19:05	JE
Surr: Toluene-d8	96		0	70-130	%REC	231478	1	10/20/2016 19:05	JE
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Aluminum	5810		5.87	50.0	ug/L	231579	1	10/25/2016 21:47	JS
Antimony	0.461	J	0.151	5.00	ug/L	231579	1	10/25/2016 21:47	JS
Arsenic	0.338	J	0.125	5.00	ug/L	231579	1	10/25/2016 21:47	JS
Barium	213		0.180	10.0	ug/L	231579	1	10/25/2016 21:47	JS
Beryllium	0.671	J	0.178	1.00	ug/L	231579	1	10/25/2016 21:47	JS
Cadmium	0.262	J	0.184	0.700	ug/L	231579	1	10/25/2016 21:47	JS
Calcium	818		12.7	100	ug/L	231579	1	10/25/2016 21:47	JS
Chromium	8.30		0.137	5.00	ug/L	231579	1	10/25/2016 21:47	JS
Cobalt	3.45	J	0.155	5.00	ug/L	231579	1	10/25/2016 21:47	JS
Copper	2.93		0.228	2.00	ug/L	231579	1	10/25/2016 21:47	JS
Iron	3710		31.9	100	ug/L	231579	1	10/25/2016 21:47	JS
Lead	18.4		0.143	1.00	ug/L	231579	1	10/25/2016 21:47	JS
Magnesium	2550		1.90	100	ug/L	231579	1	10/25/2016 21:47	JS
Manganese	51.6		0.508	5.00	ug/L	231579	1	10/25/2016 21:47	JS
Nickel	2.58	J	0.132	5.00	ug/L	231579	1	10/25/2016 21:47	JS
Potassium	3390		2.55	100	ug/L	231579	1	10/25/2016 21:47	JS
Selenium	BRL		0.159	5.00	ug/L	231579	1	10/25/2016 21:47	JS
Silver	0.163	J	0.0163	1.00	ug/L	231579	1	10/25/2016 21:47	JS
Sodium	11400		14.2	500	ug/L	231579	1	10/25/2016 21:47	JS
Thallium	0.183	J	0.127	1.00	ug/L	231579	1	10/25/2016 21:47	JS
Vanadium	4.82	J	0.130	5.00	ug/L	231579	1	10/25/2016 21:47	JS
Zinc	13.3		3.92	10.0	ug/L	231579	1	10/26/2016 20:37	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0379		0.00380	0.0100	mg/L	R327775	1	10/19/2016 16:59	AM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101816-SAG-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016 2:10:00 PM
Lab ID:	1610F37-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:36	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231393	1	10/21/2016 21:58	AW
Surr: 4-Bromofluorobenzene	97.2		0	64.9-131	%REC	231393	1	10/21/2016 21:58	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00007	0.00020	mg/L	231535	1	10/24/2016 17:13	JR
ION SCAN SW9056A									
Nitrate	3.0		0.024	0.25	mg/L	R328169	1	10/19/2016 21:42	JW
Sulfate	11		0.10	1.0	mg/L	R328169	1	10/19/2016 21:42	JW
Dissolved Metals by ICP/MS SW6020A					**(SW3005A)**				
Iron	BRL		31.9	100	ug/L	231414	1	10/21/2016 05:52	JS
Manganese	30.2		0.508	5.00	ug/L	231414	1	10/21/2016 05:52	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 18:51	NH
Surr: 4-Bromofluorobenzene	95.6		0	83.1-115	%REC	231766	1	10/26/2016 18:51	NH
Surr: Dibromofluoromethane	93.9		0	80.6-123	%REC	231766	1	10/26/2016 18:51	NH
Surr: Toluene-d8	105		0	85-115	%REC	231766	1	10/26/2016 18:51	NH

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016
Lab ID:	1610F37-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231478	1	10/20/2016 16:19	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 16:19	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 16:19	JE
2-Butanone	BRL		2.9	10	ug/L	231478	1	10/20/2016 16:19	JE
2-Hexanone	BRL		3.2	10	ug/L	231478	1	10/20/2016 16:19	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231478	1	10/20/2016 16:19	JE
Acetone	BRL		5.3	20	ug/L	231478	1	10/20/2016 16:19	JE
Benzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Bromoform	BRL		0.26	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Bromomethane	BRL		0.46	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231478	1	10/20/2016 16:19	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231478	1	10/20/2016 16:19	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Chloroethane	BRL		0.39	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Chloroform	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Chloromethane	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 16:19	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231478	1	10/20/2016 16:19	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231478	1	10/20/2016 16:19	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Freon-113	BRL		0.32	5.0	ug/L	231478	1	10/20/2016 16:19	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231478	1	10/20/2016 16:19	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231478	1	10/20/2016 16:19	JE
Methylene chloride	BRL		0.31	5.0	ug/L	231478	1	10/20/2016 16:19	JE
Styrene	BRL		0.13	1.0	ug/L	231478	1	10/20/2016 16:19	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2016
Lab ID:	1610F37-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	BRL		0.29	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Toluene	BRL		0.20	1.0	ug/L	231478	1	10/20/2016 16:19	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231478	1	10/20/2016 16:19	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231478	1	10/20/2016 16:19	JE
Trichloroethene	BRL		0.35	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231478	1	10/20/2016 16:19	JE
Surr: 4-Bromofluorobenzene	100		0	70-130	%REC	231478	1	10/20/2016 16:19	JE
Surr: Dibromofluoromethane	96.7		0	70-130	%REC	231478	1	10/20/2016 16:19	JE
Surr: Toluene-d8	95.8		0	70-130	%REC	231478	1	10/20/2016 16:19	JE
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231766	1	10/26/2016 12:44	NH
Surr: 4-Bromofluorobenzene	95.8		0	83.1-115	%REC	231766	1	10/26/2016 12:44	NH
Surr: Dibromofluoromethane	88.3		0	80.6-123	%REC	231766	1	10/26/2016 12:44	NH
Surr: Toluene-d8	101		0	85-115	%REC	231766	1	10/26/2016 12:44	NH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
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- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client GHD Work Order Number 1610F37

Checklist completed by [signature] 10/19/16
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes ✓ No __ Not Present __

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 2.4 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes __ No ✓

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by [signature]

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\l\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610F37

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610F37-001A	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F37-001A	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F37-001B	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F37-001C	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/25/2016
1610F37-001C	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/26/2016
1610F37-001C	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	TOTAL MERCURY		10/24/2016 9:59:00AM	10/24/2016
1610F37-001D	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	Dissolved Metals by ICP/MS		10/20/2016 4:05:00PM	10/21/2016
1610F37-001E	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	Phosphorus, ortho			10/19/2016
1610F37-001F	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F37-001G	GW-013926-101816-SAG-001	10/18/2016 8:45:00AM	Groundwater	ION SCAN			10/19/2016
1610F37-002A	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F37-002A	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F37-002B	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F37-002C	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/25/2016
1610F37-002C	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/26/2016
1610F37-002C	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	TOTAL MERCURY		10/24/2016 9:59:00AM	10/24/2016
1610F37-002D	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	Dissolved Metals by ICP/MS		10/20/2016 4:05:00PM	10/21/2016
1610F37-002E	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	Phosphorus, ortho			10/19/2016
1610F37-002F	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F37-002G	GW-013926-101816-SAG-002	10/18/2016 10:05:00AM	Groundwater	ION SCAN			10/19/2016
1610F37-003A	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F37-003A	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F37-003B	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F37-003C	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/25/2016
1610F37-003C	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/26/2016
1610F37-003C	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	TOTAL MERCURY		10/24/2016 9:59:00AM	10/24/2016
1610F37-003D	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	Dissolved Metals by ICP/MS		10/20/2016 4:05:00PM	10/21/2016
1610F37-003E	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	Phosphorus, ortho			10/19/2016
1610F37-003F	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610F37

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610F37-003G	GW-013926-101816-SAG-003	10/18/2016 11:30:00AM	Groundwater	ION SCAN			10/19/2016
1610F37-004A	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F37-004A	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F37-004B	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F37-004C	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/25/2016
1610F37-004C	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/26/2016
1610F37-004C	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	TOTAL MERCURY		10/24/2016 9:59:00AM	10/24/2016
1610F37-004D	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	Dissolved Metals by ICP/MS		10/20/2016 4:05:00PM	10/21/2016
1610F37-004E	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	Phosphorus, ortho			10/19/2016
1610F37-004F	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F37-004G	GW-013926-101816-SAG-004	10/18/2016 12:55:00PM	Groundwater	ION SCAN			10/19/2016
1610F37-005A	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F37-005A	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F37-005B	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F37-005C	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/25/2016
1610F37-005C	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/26/2016
1610F37-005C	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	TOTAL MERCURY		10/24/2016 9:59:00AM	10/24/2016
1610F37-005D	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	Dissolved Metals by ICP/MS		10/20/2016 4:05:00PM	10/21/2016
1610F37-005E	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	Phosphorus, ortho			10/19/2016
1610F37-005F	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F37-005G	GW-013926-101816-SAG-005	10/18/2016 1:05:00PM	Groundwater	ION SCAN			10/19/2016
1610F37-006A	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F37-006A	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016
1610F37-006B	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2016 7:00:00PM	10/21/2016
1610F37-006C	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/25/2016
1610F37-006C	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	Total Metals by ICP/MS		10/24/2016 2:21:00PM	10/26/2016
1610F37-006C	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	TOTAL MERCURY		10/24/2016 9:59:00AM	10/24/2016
1610F37-006D	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	Dissolved Metals by ICP/MS		10/20/2016 4:05:00PM	10/21/2016
1610F37-006E	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	Phosphorus, ortho			10/19/2016

Analytical Environmental Services, Inc

Date: 27-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610F37

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610F37-006F	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/24/2016
1610F37-006G	GW-013926-101816-SAG-006	10/18/2016 2:10:00PM	Groundwater	ION SCAN			10/19/2016
1610F37-007A	TRIP BLANK	10/18/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/20/2016 9:09:00AM	10/20/2016
1610F37-007A	TRIP BLANK	10/18/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 11:25:00AM	10/26/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231393

Sample ID: **MB-231393** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328064**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231393** Analysis Date: **10/20/2016** Seq No: **7116571**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.576	0	5.000		112	64.9	131				

Sample ID: **LCS-231393** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328064**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231393** Analysis Date: **10/20/2016** Seq No: **7116572**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1250	0.020	0.1000		125	60	140				
Surr: 4-Bromofluorobenzene	5.537	0	5.000		111	64.9	131				

Sample ID: **LCSD-231393** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328064**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231393** Analysis Date: **10/21/2016** Seq No: **7116573**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1240	0.020	0.1000		124	60	140	0.1250	0.803	20	
Surr: 4-Bromofluorobenzene	5.546	0	5.000		111	64.9	131	5.537	0	0	

Sample ID: **1610F37-001BMS** Client ID: **GW-013926-101816-SAG-001** Units: **ug/L** Prep Date: **10/20/2016** Run No: **328064**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231393** Analysis Date: **10/21/2016** Seq No: **7116603**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.07807	0.020	0.1001		78.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.759	0	5.004		115	64.9	131				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231414

Sample ID: **MB-231414** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327955**
SampleType: **MBLK** TestCode: **Dissolved Metals by ICP/MS SW6020A** BatchID: **231414** Analysis Date: **10/21/2016** Seq No: **7112902**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	BRL	100									
Manganese	0.5080	5.00									J

Sample ID: **LCS-231414** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327955**
SampleType: **LCS** TestCode: **Dissolved Metals by ICP/MS SW6020A** BatchID: **231414** Analysis Date: **10/21/2016** Seq No: **7112903**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	1034	100	1000		103	80	120				
Manganese	102.1	5.00	100.0	0.5080	102	80	120				

Sample ID: **1610911-006CMS** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327955**
SampleType: **MS** TestCode: **Dissolved Metals by ICP/MS SW6020A** BatchID: **231414** Analysis Date: **10/21/2016** Seq No: **7112905**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	1006	100	1000	36.67	96.9	75	125				
Manganese	765.6	5.00	100.0	690.0	75.6	75	125				

Sample ID: **1610911-006CMSD** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327955**
SampleType: **MSD** TestCode: **Dissolved Metals by ICP/MS SW6020A** BatchID: **231414** Analysis Date: **10/21/2016** Seq No: **7112906**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	992.5	100	1000	36.67	95.6	75	125	1006	1.35	20	
Manganese	763.3	5.00	100.0	690.0	73.3	75	125	765.6	0.301	20	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **MB-231478** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327968**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/20/2016** Seq No: **7113236**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2,4-Trimethylbenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3,5-Trimethylbenzene	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **MB-231478** Client ID:
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **231478**
Prep Date: **10/20/2016** Analysis Date: **10/20/2016**
Run No: **327968** Seq No: **7113236**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	49.05	0	50.00		98.1	70	130				
Surr: Dibromofluoromethane	48.46	0	50.00		96.9	70	130				
Surr: Toluene-d8	48.25	0	50.00		96.5	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **LCS-231478** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328109**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/24/2016** Seq No: **7117576**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.18	1.0	50.00		108	70	130				
1,1,2,2-Tetrachloroethane	47.42	1.0	50.00		94.8	70	130				
1,1,2-Trichloroethane	50.63	1.0	50.00		101	70	130				
1,1-Dichloroethane	51.80	1.0	50.00		104	70	130				
1,1-Dichloroethene	54.98	2.0	50.00		110	60	140				
1,2,4-Trichlorobenzene	51.59	1.0	50.00		103	70	130				
1,2,4-Trimethylbenzene	49.22	1.0	50.00		98.4	70	130				
1,2-Dibromo-3-chloropropane	51.21	1.0	50.00		102	70	130				
1,2-Dichlorobenzene	47.25	1.0	50.00		94.5	70	130				
1,2-Dichloroethane	51.15	1.0	50.00		102	70	130				
1,2-Dichloropropane	46.86	1.0	50.00		93.7	70	130				
1,3,5-Trimethylbenzene	47.73	1.0	50.00		95.5	70	130				
1,3-Dichlorobenzene	45.70	1.0	50.00		91.4	70	130				
1,4-Dichlorobenzene	43.76	1.0	50.00		87.5	70	130				
Benzene	51.28	1.0	50.00		103	70	130				
Bromodichloromethane	47.99	1.0	50.00		96.0	70	130				
Bromoform	46.53	1.0	50.00		93.1	70	130				
Carbon tetrachloride	52.85	2.0	50.00		106	70	130				
Chlorobenzene	45.53	1.0	50.00		91.1	70	130				
Chloroform	51.15	1.0	50.00		102	70	130				
cis-1,2-Dichloroethene	51.24	1.0	50.00		102	70	130				
cis-1,3-Dichloropropene	52.56	1.0	50.00		105	70	130				
Dibromochloromethane	46.11	1.0	50.00		92.2	70	130				
Ethylbenzene	51.26	1.0	50.00		103	70	130				
Isopropylbenzene	47.50	1.0	50.00		95.0	70	130				
Methylene chloride	55.12	5.0	50.00		110	70	130				
Styrene	54.26	1.0	50.00		109	70	130				

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **LCS-231478** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **328109**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/24/2016** Seq No: **7117576**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	45.25	1.0	50.00		90.5	70	130				
Toluene	50.47	1.0	50.00		101	70	130				
trans-1,2-Dichloroethene	49.99	2.0	50.00		100.0	70	130				
trans-1,3-Dichloropropene	57.01	2.0	50.00		114	70	130				
Trichloroethene	45.90	1.0	50.00		91.8	70	130				
Vinyl chloride	58.32	1.0	50.00		117	70	130				
Xylenes, Total	159.1	1.0	150.0		106	70	130				
Surr: 4-Bromofluorobenzene	53.69	0	50.00		107	70	130				
Surr: Dibromofluoromethane	49.83	0	50.00		99.7	70	130				
Surr: Toluene-d8	50.61	0	50.00		101	70	130				

Sample ID: **1610F27-001AMS** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327968**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/20/2016** Seq No: **7113240**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.23	1.0	50.00		106	64.5	140				
1,1,2,2-Tetrachloroethane	32.08	1.0	50.00		64.2	66.5	128				S
1,1,2-Trichloroethane	38.90	1.0	50.00		77.8	73.9	127				
1,1-Dichloroethane	39.42	1.0	50.00		78.8	61.6	127				
1,1-Dichloroethene	44.46	2.0	50.00		88.9	60	150				
1,2,4-Trichlorobenzene	42.85	1.0	50.00		85.7	60.4	131				
1,2,4-Trimethylbenzene	41.67	1.0	50.00		83.3	70.2	129				
1,2-Dibromo-3-chloropropane	39.25	1.0	50.00		78.5	50.2	131				
1,2-Dichlorobenzene	44.03	1.0	50.00		88.1	72	123				
1,2-Dichloroethane	48.01	1.0	50.00		96.0	66.5	133				
1,2-Dichloropropane	39.78	1.0	50.00		79.6	73	126				
1,3,5-Trimethylbenzene	41.61	1.0	50.00		83.2	66.1	133				
1,3-Dichlorobenzene	43.15	1.0	50.00		86.3	72.5	123				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **1610F27-001AMS** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327968**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/20/2016** Seq No: **7113240**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	43.46	1.0	50.00		86.9	71.1	121				
Benzene	43.03	1.0	50.00		86.1	70.1	132				
Bromodichloromethane	46.94	1.0	50.00		93.9	62.2	131				
Bromoform	47.24	1.0	50.00		94.5	50.5	138				
Carbon tetrachloride	59.27	2.0	50.00		119	60	149				
Chlorobenzene	47.80	1.0	50.00		95.6	70.9	131				
Chloroform	43.53	1.0	50.00		87.1	67.7	128				
cis-1,2-Dichloroethene	41.89	1.0	50.00		83.8	68.8	133				
cis-1,3-Dichloropropene	47.91	1.0	50.00		95.8	53.8	134				
Dibromochloromethane	47.68	1.0	50.00		95.4	57	135				
Ethylbenzene	47.70	1.0	50.00		95.4	77.8	129				
Isopropylbenzene	42.35	1.0	50.00		84.7	63	132				
Methylene chloride	36.78	5.0	50.00		73.6	60.5	124				
Styrene	47.33	1.0	50.00		94.7	73.3	133				
Tetrachloroethene	54.74	1.0	50.00		109	69.6	140				
Toluene	46.70	1.0	50.00		93.4	70.1	133				
trans-1,2-Dichloroethene	43.23	2.0	50.00		86.5	63.7	127				
trans-1,3-Dichloropropene	50.13	2.0	50.00		100	56.2	127				
Trichloroethene	51.77	1.0	50.00		104	70	136				
Vinyl chloride	48.02	1.0	50.00		96.0	56.8	141				
Xylenes, Total	146.4	1.0	150.0		97.6	74.7	133				
Surr: 4-Bromofluorobenzene	50.23	0	50.00		100	70	130				
Surr: Dibromofluoromethane	50.82	0	50.00		102	70	130				
Surr: Toluene-d8	48.13	0	50.00		96.3	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231478

Sample ID: **1610F27-001AMSD** Client ID:
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **231478**
Prep Date: **10/20/2016** Analysis Date: **10/20/2016**
Run No: **327968** Seq No: **7113242**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.16	1.0	50.00		108	64.5	140	53.23	1.73	20	
1,1,2,2-Tetrachloroethane	32.22	1.0	50.00		64.4	66.5	128	32.08	0.435	20	S
1,1,2-Trichloroethane	39.21	1.0	50.00		78.4	73.9	127	38.90	0.794	20	
1,1-Dichloroethane	39.71	1.0	50.00		79.4	61.6	127	39.42	0.733	20	
1,1-Dichloroethene	49.27	2.0	50.00		98.5	60	150	44.46	10.3	17.7	
1,2,4-Trichlorobenzene	41.83	1.0	50.00		83.7	60.4	131	42.85	2.41	24	
1,2,4-Trimethylbenzene	41.29	1.0	50.00		82.6	70.2	129	41.67	0.916	20	
1,2-Dibromo-3-chloropropane	38.62	1.0	50.00		77.2	50.2	131	39.25	1.62	19.5	
1,2-Dichlorobenzene	43.26	1.0	50.00		86.5	72	123	44.03	1.76	20	
1,2-Dichloroethane	48.14	1.0	50.00		96.3	66.5	133	48.01	0.270	20	
1,2-Dichloropropane	40.59	1.0	50.00		81.2	73	126	39.78	2.02	20	
1,3,5-Trimethylbenzene	40.72	1.0	50.00		81.4	66.1	133	41.61	2.16	20	
1,3-Dichlorobenzene	42.91	1.0	50.00		85.8	72.5	123	43.15	0.558	20	
1,4-Dichlorobenzene	43.11	1.0	50.00		86.2	71.1	121	43.46	0.809	20	
Benzene	43.52	1.0	50.00		87.0	70.1	132	43.03	1.13	20	
Bromodichloromethane	47.52	1.0	50.00		95.0	62.2	131	46.94	1.23	20	
Bromoform	47.70	1.0	50.00		95.4	50.5	138	47.24	0.969	17.9	
Carbon tetrachloride	59.91	2.0	50.00		120	60	149	59.27	1.07	20	
Chlorobenzene	47.28	1.0	50.00		94.6	70.9	131	47.80	1.09	20	
Chloroform	44.55	1.0	50.00		89.1	67.7	128	43.53	2.32	20	
cis-1,2-Dichloroethene	42.00	1.0	50.00		84.0	68.8	133	41.89	0.262	20	
cis-1,3-Dichloropropene	48.21	1.0	50.00		96.4	53.8	134	47.91	0.624	20	
Dibromochloromethane	46.80	1.0	50.00		93.6	57	135	47.68	1.86	20	
Ethylbenzene	47.62	1.0	50.00		95.2	77.8	129	47.70	0.168	20	
Isopropylbenzene	41.98	1.0	50.00		84.0	63	132	42.35	0.878	20	
Methylene chloride	37.37	5.0	50.00		74.7	60.5	124	36.78	1.59	17.4	
Styrene	46.74	1.0	50.00		93.5	73.3	133	47.33	1.25	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: **231478**

Sample ID: **1610F27-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/20/2016** Run No: **327968**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231478** Analysis Date: **10/20/2016** Seq No: **7113242**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	54.34	1.0	50.00		109	69.6	140	54.74	0.733	20	
Toluene	47.08	1.0	50.00		94.2	70.1	133	46.70	0.810	20	
trans-1,2-Dichloroethene	43.81	2.0	50.00		87.6	63.7	127	43.23	1.33	20	
trans-1,3-Dichloropropene	51.63	2.0	50.00		103	56.2	127	50.13	2.95	20	
Trichloroethene	50.92	1.0	50.00		102	70	136	51.77	1.66	20	
Vinyl chloride	49.23	1.0	50.00		98.5	56.8	141	48.02	2.49	18.4	
Xylenes, Total	146.7	1.0	150.0		97.8	74.7	133	146.4	0.232	22.7	
Surr: 4-Bromofluorobenzene	51.45	0	50.00		103	70	130	50.23	0	0	
Surr: Dibromofluoromethane	52.35	0	50.00		105	70	130	50.82	0	0	
Surr: Toluene-d8	49.03	0	50.00		98.1	70	130	48.13	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231535

Sample ID: **MB-231535** Client ID:
SampleType: **MBLK** TestCode: **Mercury, Total SW7470A**
Units: **mg/L** BatchID: **231535**
Prep Date: **10/24/2016** Analysis Date: **10/24/2016**
Run No: **328137** Seq No: **7118648**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.00020									

Sample ID: **LCS-231535** Client ID:
SampleType: **LCS** TestCode: **Mercury, Total SW7470A**
Units: **mg/L** BatchID: **231535**
Prep Date: **10/24/2016** Analysis Date: **10/24/2016**
Run No: **328137** Seq No: **7118649**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004578	0.00020	0.0050		91.6	80	120				

Sample ID: **1610F37-004CMS** Client ID: **GW-013926-101816-SAG-004**
SampleType: **MS** TestCode: **Mercury, Total SW7470A**
Units: **mg/L** BatchID: **231535**
Prep Date: **10/24/2016** Analysis Date: **10/24/2016**
Run No: **328137** Seq No: **7118651**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004990	0.00020	0.0050		99.8	70	130				

Sample ID: **1610F37-004CMSD** Client ID: **GW-013926-101816-SAG-004**
SampleType: **MSD** TestCode: **Mercury, Total SW7470A**
Units: **mg/L** BatchID: **231535**
Prep Date: **10/24/2016** Analysis Date: **10/24/2016**
Run No: **328137** Seq No: **7118652**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.005008	0.00020	0.0050		100	70	130	0.004990	0.369	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231579

Sample ID: **MB-231579** Client ID: Units: **ug/L** Prep Date: **10/24/2016** Run No: **328229**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231579** Analysis Date: **10/25/2016** Seq No: **7120948**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	BRL	50.0									
Antimony	BRL	5.00									
Arsenic	BRL	5.00									
Barium	BRL	10.0									
Beryllium	BRL	1.00									
Cadmium	BRL	0.700									
Calcium	BRL	100									
Chromium	0.4500	5.00									J
Cobalt	BRL	5.00									
Copper	BRL	2.00									
Iron	BRL	100									
Lead	BRL	1.00									
Magnesium	BRL	100									
Manganese	BRL	5.00									
Nickel	BRL	5.00									
Potassium	3.327	100									J
Selenium	BRL	5.00									
Silver	BRL	1.00									
Sodium	40.82	500									J
Thallium	BRL	1.00									
Vanadium	BRL	5.00									
Zinc	BRL	10.0									

Sample ID: **LCS-231579** Client ID: Units: **ug/L** Prep Date: **10/24/2016** Run No: **328229**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231579** Analysis Date: **10/25/2016** Seq No: **7120949**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	996.3	50.0	1000		99.6	80	120				

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231579

Sample ID: **LCS-231579** Client ID:
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020A**
Units: **ug/L** Prep Date: **10/24/2016** Run No: **328229**
BatchID: **231579** Analysis Date: **10/25/2016** Seq No: **7120949**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	100.3	5.00	100.0		100	80	120				
Arsenic	99.66	5.00	100.0		99.7	80	120				
Barium	100.6	10.0	100.0		101	80	120				
Beryllium	102.4	1.00	100.0		102	80	120				
Cadmium	102.8	0.700	100.0		103	80	120				
Calcium	1027	100	1000		103	80	120				
Chromium	101.7	5.00	100.0	0.4500	101	80	120				
Cobalt	101.6	5.00	100.0		102	80	120				
Copper	98.22	2.00	100.0		98.2	80	120				
Iron	1059	100	1000		106	80	120				
Lead	101.8	1.00	100.0		102	80	120				
Magnesium	1013	100	1000		101	80	120				
Manganese	102.6	5.00	100.0		103	80	120				
Nickel	101.0	5.00	100.0		101	80	120				
Potassium	1039	100	1000	3.327	104	80	120				
Selenium	101.0	5.00	100.0		101	80	120				
Silver	10.27	1.00	10.00		103	80	120				
Sodium	1002	500	1000	40.82	96.1	80	120				
Thallium	107.0	1.00	100.0		107	80	120				
Vanadium	99.15	5.00	100.0		99.2	80	120				
Zinc	102.5	10.0	100.0		102	80	120				

Sample ID: **1610E47-016BMS** Client ID:
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A**
Units: **ug/L** Prep Date: **10/24/2016** Run No: **328229**
BatchID: **231579** Analysis Date: **10/25/2016** Seq No: **7120951**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	2755	50.0	1000	1258	150	75	125				S
Antimony	95.24	5.00	100.0	0.7960	94.4	75	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231579

Sample ID: **1610E47-016BMS** Client ID: Units: **ug/L** Prep Date: **10/24/2016** Run No: **328229**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231579** Analysis Date: **10/25/2016** Seq No: **7120951**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	95.99	5.00	100.0		96.0	75	125				
Barium	166.9	10.0	100.0	62.50	104	75	125				
Beryllium	103.0	1.00	100.0	0.2370	103	75	125				
Cadmium	102.4	0.700	100.0		102	75	125				
Calcium	1759	100	1000	627.0	113	75	125				
Chromium	98.59	5.00	100.0	2.361	96.2	75	125				
Cobalt	98.39	5.00	100.0	0.4690	97.9	75	125				
Copper	97.78	2.00	100.0	2.331	95.4	75	125				
Iron	1725	100	1000	645.8	108	75	125				
Lead	101.6	1.00	100.0	1.145	100	75	125				
Magnesium	2096	100	1000	1066	103	75	125				
Manganese	140.8	5.00	100.0	40.27	101	75	125				
Nickel	98.11	5.00	100.0	0.8290	97.3	75	125				
Potassium	2780	100	1000	1838	94.2	75	125				
Selenium	98.05	5.00	100.0	0.3310	97.7	75	125				
Silver	10.13	1.00	10.00	0.03600	101	75	125				
Sodium	2780	500	1000	1904	87.6	75	125				
Thallium	106.7	1.00	100.0	0.1850	107	75	125				
Vanadium	95.74	5.00	100.0	0.1630	95.6	75	125				
Zinc	107.0	10.0	100.0	7.200	99.8	75	125				

Sample ID: **1610E47-016BMSD** Client ID: Units: **ug/L** Prep Date: **10/24/2016** Run No: **328229**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231579** Analysis Date: **10/25/2016** Seq No: **7120954**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	2874	50.0	1000	1258	162	75	125	0	0	20	S
Antimony	96.39	5.00	100.0	0.7960	95.6	75	125	0	0	20	
Arsenic	97.32	5.00	100.0		97.3	75	125	0	0	20	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231579

Sample ID: **1610E47-016BMSD** Client ID: Units: **ug/L** Prep Date: **10/24/2016** Run No: **328229**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231579** Analysis Date: **10/25/2016** Seq No: **7120954**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Barium	170.7	10.0	100.0	62.50	108	75	125	0	0	20	
Beryllium	105.3	1.00	100.0	0.2370	105	75	125	0	0	20	
Cadmium	103.8	0.700	100.0		104	75	125	0	0	20	
Calcium	1625	100	1000	627.0	99.8	75	125	0	0	20	
Chromium	100.2	5.00	100.0	2.361	97.8	75	125	0	0	20	
Cobalt	99.25	5.00	100.0	0.4690	98.8	75	125	0	0	20	
Copper	98.91	2.00	100.0	2.331	96.6	75	125	0	0	20	
Iron	1722	100	1000	645.8	108	75	125	0	0	20	
Lead	102.5	1.00	100.0	1.145	101	75	125	0	0	20	
Magnesium	2145	100	1000	1066	108	75	125	0	0	20	
Manganese	143.7	5.00	100.0	40.27	103	75	125	0	0	20	
Nickel	99.15	5.00	100.0	0.8290	98.3	75	125	0	0	20	
Potassium	3107	100	1000	1838	127	75	125	0	0	20	S
Selenium	99.12	5.00	100.0	0.3310	98.8	75	125	0	0	20	
Silver	10.29	1.00	10.00	0.03600	103	75	125	0	0	20	
Sodium	2960	500	1000	1904	106	75	125	0	0	20	
Thallium	107.7	1.00	100.0	0.1850	108	75	125	0	0	20	
Vanadium	96.96	5.00	100.0	0.1630	96.8	75	125	0	0	20	
Zinc	107.8	10.0	100.0	7.200	101	75	125	0	0	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: 231766

Sample ID: **MB-231766** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328323**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **231766** Analysis Date: **10/26/2016** Seq No: **7122818**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	49.28	0	50.00		98.6	83.1	115				
Surr: Dibromofluoromethane	45.42	0	50.00		90.8	80.6	123				
Surr: Toluene-d8	50.20	0	50.00		100	85	115				

Sample ID: **LCS-231766** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328323**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **231766** Analysis Date: **10/26/2016** Seq No: **7122817**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.320	5.0	10.00		73.2	68.2	133				
Surr: 4-Bromofluorobenzene	52.25	0	50.00		104	83.1	115				
Surr: Dibromofluoromethane	44.12	0	50.00		88.2	80.6	123				
Surr: Toluene-d8	50.71	0	50.00		101	85	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: R327775

Sample ID: **MB-R327775** Client ID: Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108729**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R327775** Client ID: Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108730**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09860	0.0100	0.1000		98.6	90	110				

Sample ID: **1610F19-002GMS** Client ID: Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108750**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1160	0.0100	0.1000	0.01230	104	90	110				

Sample ID: **1610F19-005GMS** Client ID: Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108756**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1310	0.0100	0.1000	0.02890	102	90	110				

Sample ID: **1610F19-005GMSD** Client ID: Units: **mg/L** Prep Date: Run No: **327775**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R327775** Analysis Date: **10/19/2016** Seq No: **7108757**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1290	0.0100	0.1000	0.02890	100	90	110	0.1310	1.54	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: R328091

Sample ID: **MB-R328091** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117634**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R328091** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117635**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.060	0.020	1.000		106	90	110				

Sample ID: **1610D70-001AMS** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117668**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.200	0.020	1.000	0.2040	99.6	90	110				

Sample ID: **1610F37-004FMS** Client ID: **GW-013926-101816-SAG-004** Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117651**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9870	0.020	1.000		98.7	90	110				

Sample ID: **1610D70-001AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117637**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.170	0.020	1.000	0.2040	96.6	90	110	1.200	2.53	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: R328167

Sample ID: **MB-R328167** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119391**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R328167** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119390**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	5.193	0.25	5.000		104	90	110				
Sulfate	25.70	1.0	25.00		103	90	110				

Sample ID: **1610E93-007AMS** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119413**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	4.851	0.25	5.000		97.0	90	110				
Sulfate	25.13	1.0	25.00	1.923	92.8	90	110				

Sample ID: **1610E94-007AMS** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119415**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	4.945	0.25	5.000	0.03232	98.3	90	110				
Sulfate	25.24	1.0	25.00	1.002	96.9	90	110				

Sample ID: **1610E93-007AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119414**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	4.820	0.25	5.000		96.4	90	110	4.851	0.635	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: **R328167**

Sample ID: **1610E93-007AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **328167**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R328167** Analysis Date: **10/19/2016** Seq No: **7119414**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfate	25.51	1.0	25.00	1.923	94.4	90	110	25.13	1.51	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610F37

ANALYTICAL QC SUMMARY REPORT

BatchID: R328169

Sample ID: **MB-R328169** Client ID:
SampleType: **MBLK** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **328169**
BatchID: **R328169** Analysis Date: **10/19/2016** Seq No: **7119544**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R328169** Client ID:
SampleType: **LCS** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **328169**
BatchID: **R328169** Analysis Date: **10/19/2016** Seq No: **7119543**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	5.005	0.25	5.000		100	90	110				
Sulfate	24.79	1.0	25.00		99.2	90	110				

Sample ID: **1610F50-002BMS** Client ID:
SampleType: **MS** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **328169**
BatchID: **R328169** Analysis Date: **10/19/2016** Seq No: **7119549**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	72.43	2.5	50.00	20.56	104	90	110				
Sulfate	279.8	10	250.0	37.31	97.0	90	110				

Sample ID: **1610F50-002BMSD** Client ID:
SampleType: **MSD** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **328169**
BatchID: **R328169** Analysis Date: **10/19/2016** Seq No: **7119550**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	74.32	2.5	50.00	20.56	108	90	110	72.43	2.58	20	
Sulfate	284.2	10	250.0	37.31	98.8	90	110	279.8	1.56	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 31, 2016

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aqua-Tech Environmental

Dear Terefe Mazengia:

Order No: 1610G57

Analytical Environmental Services, Inc. received 10 samples on 10/20/2016 12:28:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1610657

Date: _____ Page _____ of _____

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd, suite 470 Duluth, GA 30096

PHONE: 770-441-0027

FAX: 770-441-2050

SAMPLED BY: DJB + SAG

SIGNATURE: [signature]

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

ANALYSIS REQUESTED / PRESERVATION (See codes)

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL VOCs, TMBS	1,4 Dioxane	SSP Metals	Front Manganese	Dis Gases	Alkalinity	Chloride	Nitrate	Sulfate	TOC	Ammonia	Orthophosphate	EDB	REMARKS	No # of Containers
1	GW-013926-101916-SAG-009	10/19/16	9:00	G			X	X	X	X	X	X	X	X	X	X	X	X	X	SSOW #	12
2	GW-013926-101916-SAG-010	↓	10:20	↓			X	X	X	X	X	X	X	X	X	X	X	X	X	13926-025	12
3	GW-013926-101916-SAG-011	↓	11:45	↓			X	X	X	X	X	X	X	X	X	X	X	X	X		12
4	GW-013926-101916-SAG-012	↓	14:25	↓			X	X	X	X	X	X	X	X	X	X	X	X	X	X ms/msD	36
5	GW-013926-101916-DJB-105	10/19/16	12:00	G			X	X	X	X	X	X	X	X	X	X	X	X	X		12
6	GW-013926-101916-DJB-106	↓	10:15	↓			X	X	X	X	X	X	X	X	X	X	X	X	X		12
7	GW-013926-101916-DJB-107	↓	11:30	↓			X	X	X	X	X	X	X	X	X	X	X	X	X		12
8	GW-013926-101916-DJB-108	↓	14:45	↓			X	X	X	X	X	X	X	X	X	X	X	X	X		12
9	GW-013926-101916-DJB-109	10/19/16	15:45	G			X	X	X	X	X	X	X	X	X	X	X	X	X		12
10	Trip Blank						X														2
11																					
12																					
13																					
14																					

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1: [signature]	10/20/19 12:25	1: [signature]	10/20/16 12:28 pm
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD:
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Aqua-Tech Env.
PROJECT #: 13926
SITE ADDRESS: Greer, South Carolina
SEND REPORT TO: See SSOW
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers

Turnaround Time Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other _____

STATE PROGRAM (if any): _____
E-mail? Fax?
DATA PACKAGE: I ○ II ○ III ○ IV ○

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY. IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.

SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1610G57

Case Narrative

Sample Receiving Nonconformance:

For sample "TRIP BLANK 2" both vials were received broken. The laboratory proceeded to analyze the other trip blanks.

Sample information on the Chain of Custody (COC) did not match that on the sample bottle labels for sample -005G. Sample -005G was recieved without a sample label on the container, however since the bottle was received in the same bag as the other "GW-013926-101916-DJB-105" and was the only missing container it was logged in according to the COC.

Volatile Organic Compounds Analysis by Method 8260B:

1,4-Dioxane value for samples 1610G57-006A,& -007A is "E" qualified indicating an estimated value over linear calibration range. Sample could not be diluted and reanalyzed due insufficient vialsreceived by laboratory.

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-009
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 9:00:00 AM
Lab ID:	1610G57-001	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,1,2,2-Tetrachloroethane	4.0		0.24	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231601	1	10/21/2016 20:43	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 20:43	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 20:43	JE
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/21/2016 20:43	JE
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/21/2016 20:43	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/21/2016 20:43	JE
Acetone	BRL		5.3	20	ug/L	231601	1	10/21/2016 20:43	JE
Benzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/21/2016 20:43	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/21/2016 20:43	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Chloroethane	BRL		0.39	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Chloroform	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 20:43	JE
cis-1,2-Dichloroethene	37		0.27	1.0	ug/L	231601	1	10/21/2016 20:43	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/21/2016 20:43	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/21/2016 20:43	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/21/2016 20:43	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/21/2016 20:43	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-009
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 9:00:00 AM
Lab ID:	1610G57-001	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/21/2016 20:43	JE
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Tetrachloroethene	27		0.29	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 20:43	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231601	1	10/21/2016 20:43	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/21/2016 20:43	JE
Trichloroethene	71		0.35	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 20:43	JE
Surr: 4-Bromofluorobenzene	99.8		0	70-130	%REC	231601	1	10/21/2016 20:43	JE
Surr: Dibromofluoromethane	93.8		0	70-130	%REC	231601	1	10/21/2016 20:43	JE
Surr: Toluene-d8	97.2		0	70-130	%REC	231601	1	10/21/2016 20:43	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R328031	1	10/21/2016 18:28	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.282	J	0.125	5.00	ug/L	231722	1	10/27/2016 14:48	JS
Barium	115		0.180	10.0	ug/L	231722	1	10/27/2016 14:48	JS
Cadmium	0.902		0.184	0.700	ug/L	231722	1	10/27/2016 14:48	JS
Chromium	0.651	J	0.137	5.00	ug/L	231722	1	10/27/2016 14:48	JS
Copper	0.877	J	0.228	2.00	ug/L	231722	1	10/27/2016 14:48	JS
Iron	72.8	J	31.9	100	ug/L	231722	1	10/27/2016 14:48	JS
Lead	0.699	J	0.143	1.00	ug/L	231722	1	10/27/2016 14:48	JS
Manganese	2010		0.508	5.00	ug/L	231722	1	10/27/2016 14:48	JS
Selenium	0.217	J	0.159	5.00	ug/L	231722	1	10/27/2016 14:48	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0162		0.00380	0.0100	mg/L	R327869	1	10/20/2016 16:31	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:50	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231897	1	10/29/2016 03:51	AW
Surr: 4-Bromofluorobenzene	117		0	64.9-131	%REC	231897	1	10/29/2016 03:51	AW
ION SCAN SW9056A									
Chloride	12		0.11	1.0	mg/L	R328319	1	10/20/2016 16:03	JW

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-009
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 9:00:00 AM
Lab ID:	1610G57-001	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	0.51		0.024	0.25	mg/L	R328319	1	10/20/2016 16:03	JW
Sulfate	4.1		0.10	1.0	mg/L	R328319	1	10/20/2016 16:03	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231557	1	10/24/2016 11:39	MD
Ethylene	BRL		3.5	7.0	ug/L	231557	1	10/24/2016 11:39	MD
Methane	BRL		1.2	4.0	ug/L	231557	1	10/24/2016 11:39	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	20.0		1.68	3.00	mg/L	R328369	1	10/21/2016 12:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	16		0.90	2.0	ug/L	231794	1	10/26/2016 22:49	NP
Surr: 4-Bromofluorobenzene	96.3		0	83.1-115	%REC	231794	1	10/26/2016 22:49	NP
Surr: Dibromofluoromethane	91.9		0	80.6-123	%REC	231794	1	10/26/2016 22:49	NP
Surr: Toluene-d8	105		0	85-115	%REC	231794	1	10/26/2016 22:49	NP

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-010
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 10:20:00 AM
Lab ID:	1610G57-002	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231601	1	10/21/2016 21:07	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:07	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 21:07	JE
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/21/2016 21:07	JE
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/21/2016 21:07	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/21/2016 21:07	JE
Acetone	BRL		5.3	20	ug/L	231601	1	10/21/2016 21:07	JE
Benzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/21/2016 21:07	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/21/2016 21:07	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Chloroethane	BRL		0.39	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Chloroform	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 21:07	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231601	1	10/21/2016 21:07	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/21/2016 21:07	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/21/2016 21:07	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/21/2016 21:07	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/21/2016 21:07	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-010
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 10:20:00 AM
Lab ID:	1610G57-002	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/21/2016 21:07	JE
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Tetrachloroethene	9.4		0.29	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 21:07	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231601	1	10/21/2016 21:07	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/21/2016 21:07	JE
Trichloroethene	5.4		0.35	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 21:07	JE
Surr: 4-Bromofluorobenzene	100		0	70-130	%REC	231601	1	10/21/2016 21:07	JE
Surr: Dibromofluoromethane	93.8		0	70-130	%REC	231601	1	10/21/2016 21:07	JE
Surr: Toluene-d8	95.5		0	70-130	%REC	231601	1	10/21/2016 21:07	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	2.09		0.337	1.00	mg/L	R328031	1	10/21/2016 18:52	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	BRL		0.125	5.00	ug/L	231722	1	10/27/2016 14:42	JS
Barium	59.3		0.180	10.0	ug/L	231722	1	10/27/2016 14:42	JS
Cadmium	0.480	J	0.184	0.700	ug/L	231722	1	10/27/2016 14:42	JS
Chromium	0.677	J	0.137	5.00	ug/L	231722	1	10/27/2016 14:42	JS
Copper	1.15	J	0.228	2.00	ug/L	231722	1	10/27/2016 14:42	JS
Iron	68.6	J	31.9	100	ug/L	231722	1	10/27/2016 14:42	JS
Lead	0.489	J	0.143	1.00	ug/L	231722	1	10/27/2016 14:42	JS
Manganese	398		0.508	5.00	ug/L	231722	1	10/27/2016 14:42	JS
Selenium	BRL		0.159	5.00	ug/L	231722	1	10/27/2016 14:42	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	BRL		0.00380	0.0100	mg/L	R327869	1	10/20/2016 16:32	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328091	1	10/24/2016 11:52	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231897	1	10/29/2016 04:19	AW
Surr: 4-Bromofluorobenzene	91.9		0	64.9-131	%REC	231897	1	10/29/2016 04:19	AW
ION SCAN SW9056A									
Chloride	5.8		0.11	1.0	mg/L	R328319	1	10/20/2016 16:18	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-010
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 10:20:00 AM
Lab ID:	1610G57-002	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	0.26		0.024	0.25	mg/L	R328319	1	10/20/2016 16:18	JW
Sulfate	0.99	J	0.10	1.0	mg/L	R328319	1	10/20/2016 16:18	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231557	1	10/24/2016 11:44	MD
Ethylene	BRL		3.5	7.0	ug/L	231557	1	10/24/2016 11:44	MD
Methane	1.9	J	1.2	4.0	ug/L	231557	1	10/24/2016 11:44	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	11.0		1.68	3.00	mg/L	R328369	1	10/21/2016 12:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	2.1		0.90	2.0	ug/L	231794	1	10/27/2016 11:44	NP
Surr: 4-Bromofluorobenzene	98.5		0	83.1-115	%REC	231794	1	10/27/2016 11:44	NP
Surr: Dibromofluoromethane	92.4		0	80.6-123	%REC	231794	1	10/27/2016 11:44	NP
Surr: Toluene-d8	104		0	85-115	%REC	231794	1	10/27/2016 11:44	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-011
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 11:45:00 AM
Lab ID:	1610G57-003	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,1,2,2-Tetrachloroethane	4.4		0.24	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231601	1	10/21/2016 21:30	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:30	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 21:30	JE
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/21/2016 21:30	JE
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/21/2016 21:30	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/21/2016 21:30	JE
Acetone	BRL		5.3	20	ug/L	231601	1	10/21/2016 21:30	JE
Benzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/21/2016 21:30	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/21/2016 21:30	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Chloroethane	BRL		0.39	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Chloroform	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 21:30	JE
cis-1,2-Dichloroethene	23		0.27	1.0	ug/L	231601	1	10/21/2016 21:30	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/21/2016 21:30	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/21/2016 21:30	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/21/2016 21:30	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/21/2016 21:30	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-011
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 11:45:00 AM
Lab ID:	1610G57-003	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/21/2016 21:30	JE
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Tetrachloroethene	10		0.29	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 21:30	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231601	1	10/21/2016 21:30	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/21/2016 21:30	JE
Trichloroethene	81		0.35	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 21:30	JE
Surr: 4-Bromofluorobenzene	98.7		0	70-130	%REC	231601	1	10/21/2016 21:30	JE
Surr: Dibromofluoromethane	95		0	70-130	%REC	231601	1	10/21/2016 21:30	JE
Surr: Toluene-d8	96.8		0	70-130	%REC	231601	1	10/21/2016 21:30	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.21		0.337	1.00	mg/L	R328031	1	10/21/2016 19:19	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.360	J	0.125	5.00	ug/L	231722	1	10/27/2016 15:21	JS
Barium	180		0.180	10.0	ug/L	231722	1	10/27/2016 15:21	JS
Cadmium	0.188	J	0.184	0.700	ug/L	231722	1	10/27/2016 15:21	JS
Chromium	0.578	J	0.137	5.00	ug/L	231722	1	10/27/2016 15:21	JS
Copper	0.587	J	0.228	2.00	ug/L	231722	1	10/27/2016 15:21	JS
Iron	BRL		31.9	100	ug/L	231722	1	10/27/2016 15:21	JS
Lead	0.184	J	0.143	1.00	ug/L	231722	1	10/27/2016 15:21	JS
Manganese	3960		0.508	5.00	ug/L	231722	1	10/27/2016 15:21	JS
Selenium	0.539	J	0.159	5.00	ug/L	231722	1	10/27/2016 15:21	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00514	J	0.00380	0.0100	mg/L	R327869	1	10/20/2016 16:33	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.015	J	0.010	0.020	mg/L	R328092	1	10/24/2016 12:17	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231897	1	10/29/2016 04:47	AW
Surr: 4-Bromofluorobenzene	123		0	64.9-131	%REC	231897	1	10/29/2016 04:47	AW
ION SCAN SW9056A									
Chloride	28		0.11	1.0	mg/L	R328319	1	10/20/2016 16:32	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-011
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 11:45:00 AM
Lab ID:	1610G57-003	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	0.38		0.024	0.25	mg/L	R328319	1	10/20/2016 16:32	JW
Sulfate	0.87	J	0.10	1.0	mg/L	R328319	1	10/20/2016 16:32	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231557	1	10/24/2016 11:57	MD
Ethylene	BRL		3.5	7.0	ug/L	231557	1	10/24/2016 11:57	MD
Methane	8.5		1.2	4.0	ug/L	231557	1	10/24/2016 11:57	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	5.00		1.68	3.00	mg/L	R328369	1	10/21/2016 12:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	16		0.90	2.0	ug/L	231794	1	10/26/2016 23:42	NP
Surr: 4-Bromofluorobenzene	96.4		0	83.1-115	%REC	231794	1	10/26/2016 23:42	NP
Surr: Dibromofluoromethane	91.6		0	80.6-123	%REC	231794	1	10/26/2016 23:42	NP
Surr: Toluene-d8	106		0	85-115	%REC	231794	1	10/26/2016 23:42	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-012
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 2:25:00 PM
Lab ID:	1610G57-004	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,1,2,2-Tetrachloroethane	3.8		0.24	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,1-Dichloroethane	15		0.25	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,1-Dichloroethene	8.5		0.36	2.0	ug/L	231601	1	10/21/2016 21:54	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:54	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 21:54	JE
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/21/2016 21:54	JE
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/21/2016 21:54	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/21/2016 21:54	JE
Acetone	BRL		5.3	20	ug/L	231601	1	10/21/2016 21:54	JE
Benzene	4.1		0.14	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/21/2016 21:54	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/21/2016 21:54	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Chloroethane	BRL		0.39	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Chloroform	1.9		0.30	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 21:54	JE
cis-1,2-Dichloroethene	130		0.27	1.0	ug/L	231601	1	10/21/2016 21:54	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/21/2016 21:54	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/21/2016 21:54	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/21/2016 21:54	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/21/2016 21:54	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-012
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 2:25:00 PM
Lab ID:	1610G57-004	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/21/2016 21:54	JE
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Tetrachloroethene	36		0.29	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 21:54	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231601	1	10/21/2016 21:54	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/21/2016 21:54	JE
Trichloroethene	120		0.35	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 21:54	JE
Surr: 4-Bromofluorobenzene	99.9		0	70-130	%REC	231601	1	10/21/2016 21:54	JE
Surr: Dibromofluoromethane	98.5		0	70-130	%REC	231601	1	10/21/2016 21:54	JE
Surr: Toluene-d8	96.8		0	70-130	%REC	231601	1	10/21/2016 21:54	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R328031	1	10/21/2016 19:46	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.187	J	0.125	5.00	ug/L	231722	1	10/27/2016 15:27	JS
Barium	196		0.180	10.0	ug/L	231722	1	10/27/2016 15:27	JS
Cadmium	0.389	J	0.184	0.700	ug/L	231722	1	10/27/2016 15:27	JS
Chromium	0.855	J	0.137	5.00	ug/L	231722	1	10/27/2016 15:27	JS
Copper	1.03	J	0.228	2.00	ug/L	231722	1	10/27/2016 15:27	JS
Iron	226		31.9	100	ug/L	231722	1	10/27/2016 15:27	JS
Lead	0.401	J	0.143	1.00	ug/L	231722	1	10/27/2016 15:27	JS
Manganese	292		0.508	5.00	ug/L	231722	1	10/27/2016 15:27	JS
Selenium	0.282	J	0.159	5.00	ug/L	231722	1	10/27/2016 15:27	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0354		0.00380	0.0100	mg/L	R327869	1	10/20/2016 16:34	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.088		0.010	0.020	mg/L	R328092	1	10/24/2016 12:19	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231897	1	10/28/2016 20:16	AW
Surr: 4-Bromofluorobenzene	107		0	64.9-131	%REC	231897	1	10/28/2016 20:16	AW
ION SCAN SW9056A									
Chloride	21		0.11	1.0	mg/L	R328319	1	10/20/2016 16:47	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-SAG-012
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 2:25:00 PM
Lab ID:	1610G57-004	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	1.1		0.024	0.25	mg/L	R328319	1	10/20/2016 16:47	JW
Sulfate	8.2		0.10	1.0	mg/L	R328319	1	10/20/2016 16:47	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231557	1	10/24/2016 12:02	MD
Ethylene	BRL		3.5	7.0	ug/L	231557	1	10/24/2016 12:02	MD
Methane	23		1.2	4.0	ug/L	231557	1	10/24/2016 12:02	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	43.0		1.68	3.00	mg/L	R328369	1	10/21/2016 12:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	140		0.90	2.0	ug/L	231794	1	10/27/2016 00:08	NP
Surr: 4-Bromofluorobenzene	95.7		0	83.1-115	%REC	231794	1	10/27/2016 00:08	NP
Surr: Dibromofluoromethane	91.3		0	80.6-123	%REC	231794	1	10/27/2016 00:08	NP
Surr: Toluene-d8	104		0	85-115	%REC	231794	1	10/27/2016 00:08	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-105
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 12:00:00 PM
Lab ID:	1610G57-005	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,1-Dichloroethane	1.9		0.25	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231601	1	10/27/2016 14:27	NP
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/27/2016 14:27	NP
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/27/2016 14:27	NP
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/27/2016 14:27	NP
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/27/2016 14:27	NP
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/27/2016 14:27	NP
Acetone	BRL		5.3	20	ug/L	231601	1	10/27/2016 14:27	NP
Benzene	BRL		0.14	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/27/2016 14:27	NP
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/27/2016 14:27	NP
Chlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Chloroethane	BRL		0.39	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Chloroform	BRL		0.30	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/27/2016 14:27	NP
cis-1,2-Dichloroethene	17		0.27	1.0	ug/L	231601	1	10/27/2016 14:27	NP
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/27/2016 14:27	NP
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/27/2016 14:27	NP
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/27/2016 14:27	NP
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/27/2016 14:27	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-105
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 12:00:00 PM
Lab ID:	1610G57-005	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/27/2016 14:27	NP
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Tetrachloroethene	BRL		0.29	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/27/2016 14:27	NP
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231601	1	10/27/2016 14:27	NP
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/27/2016 14:27	NP
Trichloroethene	BRL		0.35	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Vinyl chloride	4.3		0.42	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/27/2016 14:27	NP
Surr: 4-Bromofluorobenzene	94.6		0	70-130	%REC	231601	1	10/27/2016 14:27	NP
Surr: Dibromofluoromethane	104		0	70-130	%REC	231601	1	10/27/2016 14:27	NP
Surr: Toluene-d8	99.9		0	70-130	%REC	231601	1	10/27/2016 14:27	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	4.99		0.337	1.00	mg/L	R328031	1	10/21/2016 20:16	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.689	J	0.125	5.00	ug/L	231722	1	10/27/2016 15:33	JS
Barium	76.8		0.180	10.0	ug/L	231722	1	10/27/2016 15:33	JS
Cadmium	0.195	J	0.184	0.700	ug/L	231722	1	10/27/2016 15:33	JS
Chromium	0.560	J	0.137	5.00	ug/L	231722	1	10/27/2016 15:33	JS
Copper	1.38	J	0.228	2.00	ug/L	231722	1	10/27/2016 15:33	JS
Iron	174		31.9	100	ug/L	231722	1	10/27/2016 15:33	JS
Lead	0.289	J	0.143	1.00	ug/L	231722	1	10/27/2016 15:33	JS
Manganese	140		0.508	5.00	ug/L	231722	1	10/27/2016 15:33	JS
Selenium	BRL		0.159	5.00	ug/L	231722	1	10/27/2016 15:33	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.234		0.0190	0.0500	mg/L	R327869	5	10/20/2016 16:49	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	1.59		0.010	0.020	mg/L	R328092	1	10/24/2016 12:24	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.003	0.020	ug/L	231897	1	10/29/2016 05:16	AW
Surr: 4-Bromofluorobenzene	87.2		0	64.9-131	%REC	231897	1	10/29/2016 05:16	AW
ION SCAN SW9056A									
Chloride	9.1		0.11	1.0	mg/L	R328319	1	10/20/2016 17:31	JW

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-105
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 12:00:00 PM
Lab ID:	1610G57-005	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	0.033	J	0.024	0.25	mg/L	R328319	1	10/20/2016 17:31	JW
Sulfate	7.2		0.10	1.0	mg/L	R328319	1	10/20/2016 17:31	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231557	1	10/24/2016 12:06	MD
Ethylene	BRL		3.5	7.0	ug/L	231557	1	10/24/2016 12:06	MD
Methane	330		2.4	8.0	ug/L	231557	2	10/24/2016 12:29	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	150		1.68	3.00	mg/L	R328369	1	10/21/2016 12:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	58		0.90	2.0	ug/L	231794	1	10/27/2016 01:25	NP
Surr: 4-Bromofluorobenzene	97.1		0	83.1-115	%REC	231794	1	10/27/2016 01:25	NP
Surr: Dibromofluoromethane	91.4		0	80.6-123	%REC	231794	1	10/27/2016 01:25	NP
Surr: Toluene-d8	103		0	85-115	%REC	231794	1	10/27/2016 01:25	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 10:15:00 AM
Lab ID:	1610G57-006	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	2.1		0.25	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,1,2,2-Tetrachloroethane	8.5		0.24	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,1-Dichloroethane	23		0.25	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,1-Dichloroethene	31		0.36	2.0	ug/L	231601	1	10/21/2016 22:18	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,2-Dichloroethane	2.2		0.24	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 22:18	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 22:18	JE
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/21/2016 22:18	JE
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/21/2016 22:18	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/21/2016 22:18	JE
Acetone	BRL		5.3	20	ug/L	231601	1	10/21/2016 22:18	JE
Benzene	0.86	J	0.14	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/21/2016 22:18	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/21/2016 22:18	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Chloroethane	BRL		0.39	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Chloroform	14		0.30	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 22:18	JE
cis-1,2-Dichloroethene	230		2.7	10	ug/L	231601	10	10/24/2016 15:50	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/21/2016 22:18	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/21/2016 22:18	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/21/2016 22:18	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/21/2016 22:18	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 10:15:00 AM
Lab ID:	1610G57-006	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/21/2016 22:18	JE
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Tetrachloroethene	110		0.29	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 22:18	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231601	1	10/21/2016 22:18	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/21/2016 22:18	JE
Trichloroethene	320		3.5	10	ug/L	231601	10	10/24/2016 15:50	JE
Trichlorofluoromethane	2.6		0.32	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Vinyl chloride	1.9		0.42	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 22:18	JE
Surr: 4-Bromofluorobenzene	100		0	70-130	%REC	231601	1	10/21/2016 22:18	JE
Surr: 4-Bromofluorobenzene	102		0	70-130	%REC	231601	10	10/24/2016 15:50	JE
Surr: Dibromofluoromethane	96		0	70-130	%REC	231601	1	10/21/2016 22:18	JE
Surr: Dibromofluoromethane	103		0	70-130	%REC	231601	10	10/24/2016 15:50	JE
Surr: Toluene-d8	95.5		0	70-130	%REC	231601	1	10/21/2016 22:18	JE
Surr: Toluene-d8	96.1		0	70-130	%REC	231601	10	10/24/2016 15:50	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.650	J	0.337	1.00	mg/L	R328031	1	10/21/2016 23:05	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.237	J	0.125	5.00	ug/L	231722	1	10/27/2016 15:40	JS
Barium	234		0.180	10.0	ug/L	231722	1	10/27/2016 15:40	JS
Cadmium	BRL		0.184	0.700	ug/L	231722	1	10/27/2016 15:40	JS
Chromium	2.12	J	0.137	5.00	ug/L	231722	1	10/27/2016 15:40	JS
Copper	0.645	J	0.228	2.00	ug/L	231722	1	10/27/2016 15:40	JS
Iron	906		31.9	100	ug/L	231722	1	10/27/2016 15:40	JS
Lead	0.345	J	0.143	1.00	ug/L	231722	1	10/27/2016 15:40	JS
Manganese	32.2		0.508	5.00	ug/L	231722	1	10/27/2016 15:40	JS
Selenium	0.224	J	0.159	5.00	ug/L	231722	1	10/27/2016 15:40	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.151		0.00380	0.0100	mg/L	R327869	1	10/20/2016 16:38	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.034		0.010	0.020	mg/L	R328092	1	10/24/2016 12:26	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.003	0.020	ug/L	231897	1	10/29/2016 05:45	AW
Surr: 4-Bromofluorobenzene	113		0	64.9-131	%REC	231897	1	10/29/2016 05:45	AW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 10:15:00 AM
Lab ID:	1610G57-006	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	13		0.11	1.0	mg/L	R328319	1	10/20/2016 17:46	JW
Nitrate	1.2		0.024	0.25	mg/L	R328319	1	10/20/2016 17:46	JW
Sulfate	0.49	J	0.10	1.0	mg/L	R328319	1	10/20/2016 17:46	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231557	1	10/24/2016 12:11	MD
Ethylene	BRL		3.5	7.0	ug/L	231557	1	10/24/2016 12:11	MD
Methane	8.5		1.2	4.0	ug/L	231557	1	10/24/2016 12:11	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	40.0		1.68	3.00	mg/L	R328369	1	10/21/2016 12:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	550	E	0.90	2.0	ug/L	231794	1	10/27/2016 01:52	NP
Surr: 4-Bromofluorobenzene	96.1		0	83.1-115	%REC	231794	1	10/27/2016 01:52	NP
Surr: Dibromofluoromethane	93.8		0	80.6-123	%REC	231794	1	10/27/2016 01:52	NP
Surr: Toluene-d8	105		0	85-115	%REC	231794	1	10/27/2016 01:52	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 11:30:00 AM
Lab ID:	1610G57-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	53		0.25	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,1,2,2-Tetrachloroethane	14		0.24	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,1,2-Trichloroethane	4.4		0.38	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,1-Dichloroethane	15		0.25	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,1-Dichloroethene	6.7		0.36	2.0	ug/L	231601	1	10/21/2016 22:42	JE
1,2,4-Trichlorobenzene	2.7		0.18	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,2-Dichlorobenzene	4.2		0.21	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,2-Dichloroethane	3.2		0.24	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,3-Dichlorobenzene	2.5		0.21	1.0	ug/L	231601	1	10/21/2016 22:42	JE
1,4-Dichlorobenzene	3.0		0.14	1.0	ug/L	231601	1	10/21/2016 22:42	JE
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/21/2016 22:42	JE
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/21/2016 22:42	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/21/2016 22:42	JE
Acetone	BRL		5.3	20	ug/L	231601	1	10/21/2016 22:42	JE
Benzene	3.4		0.14	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/21/2016 22:42	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/21/2016 22:42	JE
Chlorobenzene	11		0.14	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Chloroethane	3.2		0.39	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Chloroform	5.1		0.30	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 22:42	JE
cis-1,2-Dichloroethene	320		2.7	10	ug/L	231601	10	10/24/2016 16:14	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/21/2016 22:42	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/21/2016 22:42	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/21/2016 22:42	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/21/2016 22:42	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 11:30:00 AM
Lab ID:	1610G57-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/21/2016 22:42	JE
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Tetrachloroethene	170		0.29	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 22:42	JE
trans-1,2-Dichloroethene	4.8		0.22	2.0	ug/L	231601	1	10/21/2016 22:42	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/21/2016 22:42	JE
Trichloroethene	42		0.35	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Vinyl chloride	44		0.42	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 22:42	JE
Surr: 4-Bromofluorobenzene	98.7		0	70-130	%REC	231601	1	10/21/2016 22:42	JE
Surr: 4-Bromofluorobenzene	100		0	70-130	%REC	231601	10	10/24/2016 16:14	JE
Surr: Dibromofluoromethane	98.8		0	70-130	%REC	231601	1	10/21/2016 22:42	JE
Surr: Dibromofluoromethane	100		0	70-130	%REC	231601	10	10/24/2016 16:14	JE
Surr: Toluene-d8	96		0	70-130	%REC	231601	1	10/21/2016 22:42	JE
Surr: Toluene-d8	94.5		0	70-130	%REC	231601	10	10/24/2016 16:14	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	7.80		0.337	1.00	mg/L	R328031	1	10/21/2016 23:32	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	1.92	J	0.125	5.00	ug/L	231722	1	10/27/2016 15:46	JS
Barium	382		0.180	10.0	ug/L	231722	1	10/27/2016 15:46	JS
Cadmium	0.570	J	0.184	0.700	ug/L	231722	1	10/27/2016 15:46	JS
Chromium	1.39	J	0.137	5.00	ug/L	231722	1	10/27/2016 15:46	JS
Copper	0.906	J	0.228	2.00	ug/L	231722	1	10/27/2016 15:46	JS
Iron	4790		31.9	100	ug/L	231722	1	10/27/2016 15:46	JS
Lead	0.733	J	0.143	1.00	ug/L	231722	1	10/27/2016 15:46	JS
Manganese	13800		0.508	5.00	ug/L	231722	1	10/27/2016 15:46	JS
Selenium	0.885	J	0.159	5.00	ug/L	231722	1	10/27/2016 15:46	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00804	J	0.00380	0.0100	mg/L	R327869	1	10/20/2016 16:46	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.071		0.010	0.020	mg/L	R328092	1	10/24/2016 12:28	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.003	0.020	ug/L	231897	1	10/29/2016 06:13	AW
Surr: 4-Bromofluorobenzene	152	S	0	64.9-131	%REC	231897	1	10/29/2016 06:13	AW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 11:30:00 AM
Lab ID:	1610G57-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	47		0.11	1.0	mg/L	R328319	1	10/20/2016 18:45	JW
Nitrate	0.33		0.024	0.25	mg/L	R328319	1	10/20/2016 18:45	JW
Sulfate	8.3		0.10	1.0	mg/L	R328319	1	10/20/2016 18:45	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	8.7	J	1.9	9.0	ug/L	231557	1	10/24/2016 12:15	MD
Ethylene	7.2		3.5	7.0	ug/L	231557	1	10/24/2016 12:15	MD
Methane	580		4.7	16	ug/L	231557	4	10/24/2016 12:34	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	37.0		1.68	3.00	mg/L	R328369	1	10/21/2016 12:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	340	E	0.90	2.0	ug/L	231794	1	10/27/2016 02:18	NP
Surr: 4-Bromofluorobenzene	98.3		0	83.1-115	%REC	231794	1	10/27/2016 02:18	NP
Surr: Dibromofluoromethane	92.1		0	80.6-123	%REC	231794	1	10/27/2016 02:18	NP
Surr: Toluene-d8	104		0	85-115	%REC	231794	1	10/27/2016 02:18	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 2:45:00 PM
Lab ID:	1610G57-008	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,1-Dichloroethane	1.3		0.25	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231601	1	10/21/2016 23:05	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 23:05	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 23:05	JE
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/21/2016 23:05	JE
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/21/2016 23:05	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/21/2016 23:05	JE
Acetone	BRL		5.3	20	ug/L	231601	1	10/21/2016 23:05	JE
Benzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/21/2016 23:05	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/21/2016 23:05	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Chloroethane	BRL		0.39	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Chloroform	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 23:05	JE
cis-1,2-Dichloroethene	14		0.27	1.0	ug/L	231601	1	10/21/2016 23:05	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/21/2016 23:05	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/21/2016 23:05	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/21/2016 23:05	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/21/2016 23:05	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 2:45:00 PM
Lab ID:	1610G57-008	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/21/2016 23:05	JE
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Tetrachloroethene	9.4		0.29	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 23:05	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231601	1	10/21/2016 23:05	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/21/2016 23:05	JE
Trichloroethene	5.8		0.35	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 23:05	JE
Surr: 4-Bromofluorobenzene	99.5		0	70-130	%REC	231601	1	10/21/2016 23:05	JE
Surr: Dibromofluoromethane	100		0	70-130	%REC	231601	1	10/21/2016 23:05	JE
Surr: Toluene-d8	95.7		0	70-130	%REC	231601	1	10/21/2016 23:05	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.550	J	0.337	1.00	mg/L	R328031	1	10/21/2016 23:59	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	0.146	J	0.125	5.00	ug/L	231722	1	10/27/2016 15:52	JS
Barium	15.4		0.180	10.0	ug/L	231722	1	10/27/2016 15:52	JS
Cadmium	BRL		0.184	0.700	ug/L	231722	1	10/27/2016 15:52	JS
Chromium	0.803	J	0.137	5.00	ug/L	231722	1	10/27/2016 15:52	JS
Copper	0.776	J	0.228	2.00	ug/L	231722	1	10/27/2016 15:52	JS
Iron	BRL		31.9	100	ug/L	231722	1	10/27/2016 15:52	JS
Lead	0.735	J	0.143	1.00	ug/L	231722	1	10/27/2016 15:52	JS
Manganese	2.45	J	0.508	5.00	ug/L	231722	1	10/27/2016 15:52	JS
Selenium	0.590	J	0.159	5.00	ug/L	231722	1	10/27/2016 15:52	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0193		0.00380	0.0100	mg/L	R327869	1	10/20/2016 16:47	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R328092	1	10/24/2016 12:29	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	231897	1	10/29/2016 06:41	AW
Surr: 4-Bromofluorobenzene	97.6		0	64.9-131	%REC	231897	1	10/29/2016 06:41	AW
ION SCAN SW9056A									
Chloride	1.4		0.11	1.0	mg/L	R328319	1	10/20/2016 19:00	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 2:45:00 PM
Lab ID:	1610G57-008	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	0.059	J	0.024	0.25	mg/L	R328319	1	10/20/2016 19:00	JW
Sulfate	8.2		0.10	1.0	mg/L	R328319	1	10/20/2016 19:00	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231557	1	10/24/2016 12:20	MD
Ethylene	BRL		3.5	7.0	ug/L	231557	1	10/24/2016 12:20	MD
Methane	BRL		1.2	4.0	ug/L	231557	1	10/24/2016 12:20	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	31.0		1.68	3.00	mg/L	R328369	1	10/21/2016 12:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	2.6		0.90	2.0	ug/L	231794	1	10/27/2016 12:11	NP
Surr: 4-Bromofluorobenzene	99.8		0	83.1-115	%REC	231794	1	10/27/2016 12:11	NP
Surr: Dibromofluoromethane	92		0	80.6-123	%REC	231794	1	10/27/2016 12:11	NP
Surr: Toluene-d8	103		0	85-115	%REC	231794	1	10/27/2016 12:11	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 3:45:00 PM
Lab ID:	1610G57-009	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231601	1	10/21/2016 23:29	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 23:29	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 23:29	JE
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/21/2016 23:29	JE
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/21/2016 23:29	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/21/2016 23:29	JE
Acetone	BRL		5.3	20	ug/L	231601	1	10/21/2016 23:29	JE
Benzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/21/2016 23:29	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/21/2016 23:29	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Chloroethane	BRL		0.39	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Chloroform	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 23:29	JE
cis-1,2-Dichloroethene	5.1		0.27	1.0	ug/L	231601	1	10/21/2016 23:29	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/21/2016 23:29	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/21/2016 23:29	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/21/2016 23:29	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/21/2016 23:29	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 3:45:00 PM
Lab ID:	1610G57-009	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/21/2016 23:29	JE
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Tetrachloroethene	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 23:29	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231601	1	10/21/2016 23:29	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/21/2016 23:29	JE
Trichloroethene	BRL		0.35	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 23:29	JE
Surr: 4-Bromofluorobenzene	100		0	70-130	%REC	231601	1	10/21/2016 23:29	JE
Surr: Dibromofluoromethane	94.8		0	70-130	%REC	231601	1	10/21/2016 23:29	JE
Surr: Toluene-d8	95.7		0	70-130	%REC	231601	1	10/21/2016 23:29	JE
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.62		0.337	1.00	mg/L	R328031	1	10/22/2016 00:25	JW
Total Metals by ICP/MS SW6020A					**(SW3005A)**				
Arsenic	1.70	J	0.125	5.00	ug/L	231722	1	10/27/2016 15:58	JS
Barium	29.2		0.180	10.0	ug/L	231722	1	10/27/2016 15:58	JS
Cadmium	BRL		0.184	0.700	ug/L	231722	1	10/27/2016 15:58	JS
Chromium	0.700	J	0.137	5.00	ug/L	231722	1	10/27/2016 15:58	JS
Copper	0.669	J	0.228	2.00	ug/L	231722	1	10/27/2016 15:58	JS
Iron	210		31.9	100	ug/L	231722	1	10/27/2016 15:58	JS
Lead	1.56		0.143	1.00	ug/L	231722	1	10/27/2016 15:58	JS
Manganese	778		0.508	5.00	ug/L	231722	1	10/27/2016 15:58	JS
Selenium	BRL		0.159	5.00	ug/L	231722	1	10/27/2016 15:58	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.254		0.0190	0.0500	mg/L	R327869	5	10/20/2016 17:09	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	2.44		0.101	0.200	mg/L	R328092	10	10/24/2016 12:42	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.003	0.020	ug/L	231897	1	10/29/2016 07:10	AW
Surr: 4-Bromofluorobenzene	82.6		0	64.9-131	%REC	231897	1	10/29/2016 07:10	AW
ION SCAN SW9056A									
Chloride	1.4		0.11	1.0	mg/L	R328319	1	10/20/2016 19:14	JW

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101916-DJB-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2016 3:45:00 PM
Lab ID:	1610G57-009	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	BRL		0.024	0.25	mg/L	R328319	1	10/20/2016 19:14	JW
Sulfate	4.0		0.10	1.0	mg/L	R328319	1	10/20/2016 19:14	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	231557	1	10/24/2016 12:24	MD
Ethylene	BRL		3.5	7.0	ug/L	231557	1	10/24/2016 12:24	MD
Methane	750		5.9	20	ug/L	231557	5	10/24/2016 12:38	MD
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	75.0		1.68	3.00	mg/L	R328369	1	10/21/2016 12:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	2.0	J	0.90	2.0	ug/L	231794	1	10/27/2016 03:10	NP
Surr: 4-Bromofluorobenzene	97.6		0	83.1-115	%REC	231794	1	10/27/2016 03:10	NP
Surr: Dibromofluoromethane	91.8		0	80.6-123	%REC	231794	1	10/27/2016 03:10	NP
Surr: Toluene-d8	103		0	85-115	%REC	231794	1	10/27/2016 03:10	NP

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- J Estimated value detected below Reporting Limit
- > Greater than Result value
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- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2016
Lab ID:	1610G57-010	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,1,2,2-Tetrachloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,1,2-Trichloroethane	BRL		0.38	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,1-Dichloroethane	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,1-Dichloroethene	BRL		0.36	2.0	ug/L	231601	1	10/21/2016 19:56	JE
1,2,4-Trichlorobenzene	BRL		0.18	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,2,4-Trimethylbenzene	BRL		0.25	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,2-Dibromo-3-chloropropane	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,2-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,2-Dichloroethane	BRL		0.24	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,2-Dichloropropane	BRL		0.23	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,3,5-Trimethylbenzene	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,3-Dichlorobenzene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 19:56	JE
1,4-Dichlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 19:56	JE
2-Butanone	BRL		2.9	10	ug/L	231601	1	10/21/2016 19:56	JE
2-Hexanone	BRL		3.2	10	ug/L	231601	1	10/21/2016 19:56	JE
4-Methyl-2-pentanone	BRL		2.7	10	ug/L	231601	1	10/21/2016 19:56	JE
Acetone	BRL		5.3	20	ug/L	231601	1	10/21/2016 19:56	JE
Benzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Bromodichloromethane	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Bromoform	BRL		0.26	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Bromomethane	BRL		0.46	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Carbon disulfide	BRL		0.46	5.0	ug/L	231601	1	10/21/2016 19:56	JE
Carbon tetrachloride	BRL		0.24	2.0	ug/L	231601	1	10/21/2016 19:56	JE
Chlorobenzene	BRL		0.14	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Chloroethane	BRL		0.39	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Chloroform	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Chloromethane	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 19:56	JE
cis-1,2-Dichloroethene	BRL		0.27	1.0	ug/L	231601	1	10/21/2016 19:56	JE
cis-1,3-Dichloropropene	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Cyclohexane	BRL		1.6	2.0	ug/L	231601	1	10/21/2016 19:56	JE
Dibromochloromethane	BRL		0.21	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Dichlorodifluoromethane	BRL		0.43	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Ethylbenzene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Freon-113	BRL		0.32	5.0	ug/L	231601	1	10/21/2016 19:56	JE
Isopropylbenzene	BRL		0.16	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Methyl acetate	BRL		0.31	2.0	ug/L	231601	1	10/21/2016 19:56	JE
Methyl tert-butyl ether	BRL		0.22	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Methylcyclohexane	BRL		0.34	2.0	ug/L	231601	1	10/21/2016 19:56	JE

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2016
Lab ID:	1610G57-010	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		0.31	5.0	ug/L	231601	1	10/21/2016 19:56	JE
Styrene	BRL		0.13	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Tetrachloroethene	BRL		0.29	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Toluene	BRL		0.20	1.0	ug/L	231601	1	10/21/2016 19:56	JE
trans-1,2-Dichloroethene	BRL		0.22	2.0	ug/L	231601	1	10/21/2016 19:56	JE
trans-1,3-Dichloropropene	BRL		0.13	2.0	ug/L	231601	1	10/21/2016 19:56	JE
Trichloroethene	BRL		0.35	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Trichlorofluoromethane	BRL		0.32	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Vinyl chloride	BRL		0.42	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Xylenes, Total	BRL		0.30	1.0	ug/L	231601	1	10/21/2016 19:56	JE
Surr: 4-Bromofluorobenzene	99.6		0	70-130	%REC	231601	1	10/21/2016 19:56	JE
Surr: Dibromofluoromethane	94		0	70-130	%REC	231601	1	10/21/2016 19:56	JE
Surr: Toluene-d8	94		0	70-130	%REC	231601	1	10/21/2016 19:56	JE
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.90	2.0	ug/L	231794	1	10/26/2016 22:23	NP
Surr: 4-Bromofluorobenzene	97.7		0	83.1-115	%REC	231794	1	10/26/2016 22:23	NP
Surr: Dibromofluoromethane	90.9		0	80.6-123	%REC	231794	1	10/26/2016 22:23	NP
Surr: Toluene-d8	104		0	85-115	%REC	231794	1	10/26/2016 22:23	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client GHD Work Order Number 1610G57

Checklist completed by [signature] 10/20/16
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes ✓ No __

Cooler #1 1.9 Cooler #2 1.6 Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes __ No ✓

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes [illegible] 10/20/16 No ✓

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by [signature]

Sample Condition: Good __ Other(Explain) Received 2 broken vials.

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\l\Sample Receipt\My Documents\COCs and pH Adjustment Sheet\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610G57

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610G57-001A	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/21/2016
1610G57-001A	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/26/2016
1610G57-001B	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	MICRO-EXTRACTABLE VOCs		10/28/2016 1:30:00 PM	10/29/2016
1610G57-001C	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	GC Analysis of Gaseous Samples		10/24/2016 10:34:20 AM	10/24/2016
1610G57-001D	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	Total Metals by ICP/MS		10/26/2016 12:58:00 PM	10/27/2016
1610G57-001E	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	Alkalinity by SM2320B			10/21/2016
1610G57-001F	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	ION SCAN			10/20/2016
1610G57-001G	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	Phosphorus, ortho			10/20/2016
1610G57-001H	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	Total Organic Carbon (TOC)			10/21/2016
1610G57-001I	GW-013926-101916-SAG-009	10/19/2016 9:00:00AM	Aqueous	Nitrogen, Ammonia (as N)			10/24/2016
1610G57-002A	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/21/2016
1610G57-002A	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/27/2016
1610G57-002B	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	MICRO-EXTRACTABLE VOCs		10/28/2016 1:30:00 PM	10/29/2016
1610G57-002C	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	GC Analysis of Gaseous Samples		10/24/2016 10:34:20 AM	10/24/2016
1610G57-002D	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	Total Metals by ICP/MS		10/26/2016 12:58:00 PM	10/27/2016
1610G57-002E	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	Alkalinity by SM2320B			10/21/2016
1610G57-002F	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	ION SCAN			10/20/2016
1610G57-002G	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	Phosphorus, ortho			10/20/2016
1610G57-002H	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	Total Organic Carbon (TOC)			10/21/2016
1610G57-002I	GW-013926-101916-SAG-010	10/19/2016 10:20:00AM	Aqueous	Nitrogen, Ammonia (as N)			10/24/2016
1610G57-003A	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/21/2016
1610G57-003A	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/26/2016
1610G57-003B	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	MICRO-EXTRACTABLE VOCs		10/28/2016 1:30:00 PM	10/29/2016
1610G57-003C	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	GC Analysis of Gaseous Samples		10/24/2016 10:34:20 AM	10/24/2016
1610G57-003D	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	Total Metals by ICP/MS		10/26/2016 12:58:00 PM	10/27/2016
1610G57-003E	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	Alkalinity by SM2320B			10/21/2016
1610G57-003F	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	ION SCAN			10/20/2016
1610G57-003G	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	Phosphorus, ortho			10/20/2016
1610G57-003H	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	Total Organic Carbon (TOC)			10/21/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610G57

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610G57-003I	GW-013926-101916-SAG-011	10/19/2016 11:45:00AM	Aqueous	Nitrogen, Ammonia (as N)			10/24/2016
1610G57-004A	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/21/2016
1610G57-004A	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/27/2016
1610G57-004B	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	MICRO-EXTRACTABLE VOCs		10/28/2016 1:30:00 PM	10/28/2016
1610G57-004C	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	GC Analysis of Gaseous Samples		10/24/2016 10:34:20 AM	10/24/2016
1610G57-004D	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	Total Metals by ICP/MS		10/26/2016 12:58:00 PM	10/27/2016
1610G57-004E	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	Alkalinity by SM2320B			10/21/2016
1610G57-004F	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	ION SCAN			10/20/2016
1610G57-004G	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	Phosphorus, ortho			10/20/2016
1610G57-004H	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	Total Organic Carbon (TOC)			10/21/2016
1610G57-004I	GW-013926-101916-SAG-012	10/19/2016 2:25:00PM	Aqueous	Nitrogen, Ammonia (as N)			10/24/2016
1610G57-005A	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/27/2016
1610G57-005A	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/27/2016
1610G57-005B	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	MICRO-EXTRACTABLE VOCs		10/28/2016 1:30:00 PM	10/29/2016
1610G57-005C	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	GC Analysis of Gaseous Samples		10/24/2016 10:34:20 AM	10/24/2016
1610G57-005D	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	Total Metals by ICP/MS		10/26/2016 12:58:00 PM	10/27/2016
1610G57-005E	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	Alkalinity by SM2320B			10/21/2016
1610G57-005F	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	ION SCAN			10/20/2016
1610G57-005G	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	Phosphorus, ortho			10/20/2016
1610G57-005H	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	Total Organic Carbon (TOC)			10/21/2016
1610G57-005I	GW-013926-101916-DJB-105	10/19/2016 12:00:00PM	Aqueous	Nitrogen, Ammonia (as N)			10/24/2016
1610G57-006A	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/21/2016
1610G57-006A	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/24/2016
1610G57-006A	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/27/2016
1610G57-006B	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	MICRO-EXTRACTABLE VOCs		10/28/2016 1:30:00 PM	10/29/2016
1610G57-006C	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	GC Analysis of Gaseous Samples		10/24/2016 10:34:20 AM	10/24/2016
1610G57-006D	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	Total Metals by ICP/MS		10/26/2016 12:58:00 PM	10/27/2016
1610G57-006E	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	Alkalinity by SM2320B			10/21/2016
1610G57-006F	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	ION SCAN			10/20/2016

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610G57

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610G57-006G	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	Phosphorus, ortho			10/20/2016
1610G57-006H	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	Total Organic Carbon (TOC)			10/21/2016
1610G57-006I	GW-013926-101916-DJB-106	10/19/2016 10:15:00AM	Aqueous	Nitrogen, Ammonia (as N)			10/24/2016
1610G57-007A	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/21/2016
1610G57-007A	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/24/2016
1610G57-007A	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/27/2016
1610G57-007B	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	MICRO-EXTRACTABLE VOCs		10/28/2016 1:30:00 PM	10/29/2016
1610G57-007C	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	GC Analysis of Gaseous Samples		10/24/2016 10:34:20 AM	10/24/2016
1610G57-007D	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	Total Metals by ICP/MS		10/26/2016 12:58:00 PM	10/27/2016
1610G57-007E	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	Alkalinity by SM2320B			10/21/2016
1610G57-007F	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	ION SCAN			10/20/2016
1610G57-007G	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	Phosphorus, ortho			10/20/2016
1610G57-007H	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	Total Organic Carbon (TOC)			10/21/2016
1610G57-007I	GW-013926-101916-DJB-107	10/19/2016 11:30:00AM	Aqueous	Nitrogen, Ammonia (as N)			10/24/2016
1610G57-008A	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/21/2016
1610G57-008A	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/27/2016
1610G57-008B	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	MICRO-EXTRACTABLE VOCs		10/28/2016 1:30:00 PM	10/29/2016
1610G57-008C	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	GC Analysis of Gaseous Samples		10/24/2016 10:34:20 AM	10/24/2016
1610G57-008D	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	Total Metals by ICP/MS		10/26/2016 12:58:00 PM	10/27/2016
1610G57-008E	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	Alkalinity by SM2320B			10/21/2016
1610G57-008F	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	ION SCAN			10/20/2016
1610G57-008G	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	Phosphorus, ortho			10/20/2016
1610G57-008H	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	Total Organic Carbon (TOC)			10/21/2016
1610G57-008I	GW-013926-101916-DJB-108	10/19/2016 2:45:00PM	Aqueous	Nitrogen, Ammonia (as N)			10/24/2016
1610G57-009A	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/21/2016
1610G57-009A	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/27/2016
1610G57-009B	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	MICRO-EXTRACTABLE VOCs		10/28/2016 1:30:00 PM	10/29/2016
1610G57-009C	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	GC Analysis of Gaseous Samples		10/24/2016 10:34:20 AM	10/24/2016
1610G57-009D	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	Total Metals by ICP/MS		10/26/2016 12:58:00 PM	10/27/2016

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1610G57

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1610G57-009E	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	Alkalinity by SM2320B			10/21/2016
1610G57-009F	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	ION SCAN			10/20/2016
1610G57-009G	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	Phosphorus, ortho			10/20/2016
1610G57-009H	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	Total Organic Carbon (TOC)			10/22/2016
1610G57-009I	GW-013926-101916-DJB-109	10/19/2016 3:45:00PM	Aqueous	Nitrogen, Ammonia (as N)			10/24/2016
1610G57-010A	TRIP BLANK	10/20/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/21/2016 5:56:00 PM	10/21/2016
1610G57-010A	TRIP BLANK	10/20/2016 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/26/2016 9:30:00 AM	10/26/2016

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231557

Sample ID: **MB-231557** Client ID: Units: **ug/L** Prep Date: **10/24/2016** Run No: **328104**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **231557** Analysis Date: **10/24/2016** Seq No: **7117444**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9.0									
Ethylene	BRL	7.0									
Methane	BRL	4.0									

Sample ID: **LCS-231557** Client ID: Units: **ug/L** Prep Date: **10/24/2016** Run No: **328104**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **231557** Analysis Date: **10/24/2016** Seq No: **7117445**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	122.8	9.0	200.0		61.4	40.9	115				
Ethylene	83.17	7.0	200.0		41.6	26.8	115				
Methane	136.0	4.0	200.0		68.0	45.9	115				

Sample ID: **LCSD-231557** Client ID: Units: **ug/L** Prep Date: **10/24/2016** Run No: **328104**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **231557** Analysis Date: **10/24/2016** Seq No: **7117447**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	120.8	9.0	200.0		60.4	40.9	115	122.8	1.66	20	
Ethylene	83.38	7.0	200.0		41.7	26.8	115	83.17	0.252	20	
Methane	132.7	4.0	200.0		66.3	45.9	115	136.0	2.46	20	

Sample ID: **1610G57-004CMS** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/24/2016** Run No: **328104**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **231557** Analysis Date: **10/24/2016** Seq No: **7117468**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	118.8	9.0	200.0		59.4	40.5	115				
Ethylene	81.01	7.0	200.0		40.5	23	115				
Methane	179.4	4.0	200.0	22.88	78.3	40	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231557

Sample ID: **1610G57-004CMSD** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/24/2016** Run No: **328104**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **231557** Analysis Date: **10/24/2016** Seq No: **7117469**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	122.0	9.0	200.0		61.0	40.5	115	118.8	2.58	20	
Ethylene	84.18	7.0	200.0		42.1	23	115	81.01	3.84	20	
Methane	179.3	4.0	200.0	22.88	78.2	40	115	179.4	0.070	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231601

Sample ID: **MB-231601**	Client ID:	Units: **ug/L**	Prep Date: **10/21/2016**	Run No: **327973**
SampleType: **MBLK**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**	BatchID: **231601**	Analysis Date: **10/21/2016**	Seq No: **7119917**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2,4-Trimethylbenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3,5-Trimethylbenzene	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231601

Sample ID: **MB-231601** Client ID: Units: **ug/L** Prep Date: **10/21/2016** Run No: **327973**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231601** Analysis Date: **10/21/2016** Seq No: **7119917**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	51.14	0	50.00		102	70	130				
Surr: Dibromofluoromethane	48.23	0	50.00		96.5	70	130				
Surr: Toluene-d8	47.72	0	50.00		95.4	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231601

Sample ID: **LCS-231601** Client ID: Units: **ug/L** Prep Date: **10/21/2016** Run No: **328392**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231601** Analysis Date: **10/26/2016** Seq No: **7125028**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	60.78	1.0	50.00		122	70	130				
1,1,2,2-Tetrachloroethane	45.97	1.0	50.00		91.9	70	130				
1,1,2-Trichloroethane	51.39	1.0	50.00		103	70	130				
1,1-Dichloroethane	54.87	1.0	50.00		110	70	130				
1,1-Dichloroethene	63.51	2.0	50.00		127	60	140				
1,2,4-Trichlorobenzene	52.46	1.0	50.00		105	70	130				
1,2,4-Trimethylbenzene	51.80	1.0	50.00		104	70	130				
1,2-Dibromo-3-chloropropane	51.28	1.0	50.00		103	70	130				
1,2-Dichlorobenzene	47.95	1.0	50.00		95.9	70	130				
1,2-Dichloroethane	50.29	1.0	50.00		101	70	130				
1,2-Dichloropropane	49.65	1.0	50.00		99.3	70	130				
1,3,5-Trimethylbenzene	51.04	1.0	50.00		102	70	130				
1,3-Dichlorobenzene	47.03	1.0	50.00		94.1	70	130				
1,4-Dichlorobenzene	44.81	1.0	50.00		89.6	70	130				
Benzene	56.29	1.0	50.00		113	70	130				
Bromodichloromethane	49.73	1.0	50.00		99.5	70	130				
Bromoform	45.21	1.0	50.00		90.4	70	130				
Carbon tetrachloride	59.99	2.0	50.00		120	70	130				
Chlorobenzene	48.51	1.0	50.00		97.0	70	130				
Chloroform	54.80	1.0	50.00		110	70	130				
cis-1,2-Dichloroethene	55.37	1.0	50.00		111	70	130				
cis-1,3-Dichloropropene	51.85	1.0	50.00		104	70	130				
Dibromochloromethane	46.28	1.0	50.00		92.6	70	130				
Ethylbenzene	55.95	1.0	50.00		112	70	130				
Isopropylbenzene	52.00	1.0	50.00		104	70	130				
Methylene chloride	56.00	5.0	50.00		112	70	130				
Styrene	57.02	1.0	50.00		114	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231601

Sample ID: **LCS-231601** Client ID: Units: **ug/L** Prep Date: **10/21/2016** Run No: **328392**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231601** Analysis Date: **10/26/2016** Seq No: **7125028**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	50.20	1.0	50.00		100	70	130				
Toluene	56.16	1.0	50.00		112	70	130				
trans-1,2-Dichloroethene	54.08	2.0	50.00		108	70	130				
trans-1,3-Dichloropropene	55.33	2.0	50.00		111	70	130				
Trichloroethene	52.13	1.0	50.00		104	70	130				
Vinyl chloride	63.50	1.0	50.00		127	70	130				
Xylenes, Total	173.8	1.0	150.0		116	70	130				
Surr: 4-Bromofluorobenzene	54.93	0	50.00		110	70	130				
Surr: Dibromofluoromethane	50.62	0	50.00		101	70	130				
Surr: Toluene-d8	51.38	0	50.00		103	70	130				

Sample ID: **1610G57-004AMS** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/21/2016** Run No: **327973**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231601** Analysis Date: **10/21/2016** Seq No: **7119915**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.85	1.0	50.00		104	64.5	140				
1,1,2,2-Tetrachloroethane	32.24	1.0	50.00	3.840	56.8	66.5	128				S
1,1,2-Trichloroethane	37.17	1.0	50.00		74.3	73.9	127				
1,1-Dichloroethane	55.48	1.0	50.00	14.89	81.2	61.6	127				
1,1-Dichloroethene	67.61	2.0	50.00	8.510	118	60	150				
1,2,4-Trichlorobenzene	41.60	1.0	50.00		83.2	60.4	131				
1,2,4-Trimethylbenzene	41.83	1.0	50.00		83.7	70.2	129				
1,2-Dibromo-3-chloropropane	27.82	1.0	50.00		55.6	50.2	131				
1,2-Dichlorobenzene	43.96	1.0	50.00		87.9	72	123				
1,2-Dichloroethane	45.36	1.0	50.00		90.7	66.5	133				
1,2-Dichloropropane	41.23	1.0	50.00		82.5	73	126				
1,3,5-Trimethylbenzene	41.55	1.0	50.00		83.1	66.1	133				
1,3-Dichlorobenzene	42.81	1.0	50.00		85.6	72.5	123				

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231601

Sample ID: **1610G57-004AMS** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/21/2016** Run No: **327973**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231601** Analysis Date: **10/21/2016** Seq No: **7119915**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	43.50	1.0	50.00		87.0	71.1	121				
Benzene	48.35	1.0	50.00	4.090	88.5	70.1	132				
Bromodichloromethane	44.52	1.0	50.00		89.0	62.2	131				
Bromoform	36.98	1.0	50.00		74.0	50.5	138				
Carbon tetrachloride	51.05	2.0	50.00		102	60	149				
Chlorobenzene	47.98	1.0	50.00		96.0	70.9	131				
Chloroform	45.71	1.0	50.00	1.910	87.6	67.7	128				
cis-1,2-Dichloroethene	166.2	1.0	50.00	128.5	75.2	68.8	133				
cis-1,3-Dichloropropene	45.89	1.0	50.00		91.8	53.8	134				
Dibromochloromethane	40.16	1.0	50.00		80.3	57	135				
Ethylbenzene	48.04	1.0	50.00		96.1	77.8	129				
Isopropylbenzene	41.95	1.0	50.00		83.9	63	132				
Methylene chloride	48.76	5.0	50.00		97.5	60.5	124				
Styrene	47.96	1.0	50.00		95.9	73.3	133				
Tetrachloroethene	92.77	1.0	50.00	35.65	114	69.6	140				
Toluene	47.49	1.0	50.00		95.0	70.1	133				
trans-1,2-Dichloroethene	44.65	2.0	50.00		89.3	63.7	127				
trans-1,3-Dichloropropene	46.28	2.0	50.00		92.6	56.2	127				
Trichloroethene	178.3	1.0	50.00	123.2	110	70	136				
Vinyl chloride	45.98	1.0	50.00		92.0	56.8	141				
Xylenes, Total	147.8	1.0	150.0		98.6	74.7	133				
Surr: 4-Bromofluorobenzene	50.37	0	50.00		101	70	130				
Surr: Dibromofluoromethane	49.52	0	50.00		99.0	70	130				
Surr: Toluene-d8	47.41	0	50.00		94.8	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231601

Sample ID: **1610G57-004AMSD** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/21/2016** Run No: **327973**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231601** Analysis Date: **10/21/2016** Seq No: **7119916**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.42	1.0	50.00		109	64.5	140	51.85	4.84	20	
1,1,2,2-Tetrachloroethane	33.81	1.0	50.00	3.840	59.9	66.5	128	32.24	4.75	20	S
1,1,2-Trichloroethane	40.14	1.0	50.00		80.3	73.9	127	37.17	7.68	20	
1,1-Dichloroethane	57.85	1.0	50.00	14.89	85.9	61.6	127	55.48	4.18	20	
1,1-Dichloroethene	62.65	2.0	50.00	8.510	108	60	150	67.61	7.62	17.7	
1,2,4-Trichlorobenzene	45.24	1.0	50.00		90.5	60.4	131	41.60	8.38	24	
1,2,4-Trimethylbenzene	43.65	1.0	50.00		87.3	70.2	129	41.83	4.26	20	
1,2-Dibromo-3-chloropropane	30.38	1.0	50.00		60.8	50.2	131	27.82	8.80	19.5	
1,2-Dichlorobenzene	46.80	1.0	50.00		93.6	72	123	43.96	6.26	20	
1,2-Dichloroethane	48.47	1.0	50.00		96.9	66.5	133	45.36	6.63	20	
1,2-Dichloropropane	44.46	1.0	50.00		88.9	73	126	41.23	7.54	20	
1,3,5-Trimethylbenzene	43.12	1.0	50.00		86.2	66.1	133	41.55	3.71	20	
1,3-Dichlorobenzene	45.66	1.0	50.00		91.3	72.5	123	42.81	6.44	20	
1,4-Dichlorobenzene	46.36	1.0	50.00		92.7	71.1	121	43.50	6.37	20	
Benzene	50.38	1.0	50.00	4.090	92.6	70.1	132	48.35	4.11	20	
Bromodichloromethane	47.25	1.0	50.00		94.5	62.2	131	44.52	5.95	20	
Bromoform	40.19	1.0	50.00		80.4	50.5	138	36.98	8.32	17.9	
Carbon tetrachloride	54.00	2.0	50.00		108	60	149	51.05	5.62	20	
Chlorobenzene	51.79	1.0	50.00		104	70.9	131	47.98	7.64	20	
Chloroform	48.28	1.0	50.00	1.910	92.7	67.7	128	45.71	5.47	20	
cis-1,2-Dichloroethene	174.3	1.0	50.00	128.5	91.6	68.8	133	166.2	4.80	20	
cis-1,3-Dichloropropene	49.35	1.0	50.00		98.7	53.8	134	45.89	7.27	20	
Dibromochloromethane	45.00	1.0	50.00		90.0	57	135	40.16	11.4	20	
Ethylbenzene	51.26	1.0	50.00		103	77.8	129	48.04	6.49	20	
Isopropylbenzene	44.24	1.0	50.00		88.5	63	132	41.95	5.31	20	
Methylene chloride	39.76	5.0	50.00		79.5	60.5	124	48.76	20.3	17.4	R
Styrene	51.40	1.0	50.00		103	73.3	133	47.96	6.92	20	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231601

Sample ID: **1610G57-004AMSD** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/21/2016** Run No: **327973**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **231601** Analysis Date: **10/21/2016** Seq No: **7119916**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	96.74	1.0	50.00	35.65	122	69.6	140	92.77	4.19	20	
Toluene	50.25	1.0	50.00		100	70.1	133	47.49	5.65	20	
trans-1,2-Dichloroethene	46.18	2.0	50.00		92.4	63.7	127	44.65	3.37	20	
trans-1,3-Dichloropropene	49.12	2.0	50.00		98.2	56.2	127	46.28	5.95	20	
Trichloroethene	183.8	1.0	50.00	123.2	121	70	136	178.3	3.05	20	
Vinyl chloride	47.90	1.0	50.00		95.8	56.8	141	45.98	4.09	18.4	
Xylenes, Total	155.9	1.0	150.0		104	74.7	133	147.8	5.28	22.7	
Surr: 4-Bromofluorobenzene	49.97	0	50.00		99.9	70	130	50.37	0	0	
Surr: Dibromofluoromethane	49.60	0	50.00		99.2	70	130	49.52	0	0	
Surr: Toluene-d8	48.33	0	50.00		96.7	70	130	47.41	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231722

Sample ID: **MB-231722** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328412**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231722** Analysis Date: **10/27/2016** Seq No: **7125612**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00									
Barium	BRL	10.0									
Cadmium	BRL	0.700									
Chromium	0.5680	5.00									J
Copper	BRL	2.00									
Iron	BRL	100									
Lead	0.2080	1.00									J
Manganese	0.7370	5.00									J
Selenium	0.2200	5.00									J

Sample ID: **LCS-231722** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328412**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231722** Analysis Date: **10/27/2016** Seq No: **7125613**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	92.57	5.00	100.0		92.6	80	120				
Barium	94.97	10.0	100.0		95.0	80	120				
Cadmium	96.56	0.700	100.0		96.6	80	120				
Chromium	94.97	5.00	100.0	0.5680	94.4	80	120				
Copper	92.21	2.00	100.0		92.2	80	120				
Iron	980.1	100	1000		98.0	80	120				
Lead	97.08	1.00	100.0	0.2080	96.9	80	120				
Manganese	96.33	5.00	100.0	0.7370	95.6	80	120				
Selenium	95.16	5.00	100.0	0.2200	94.9	80	120				

Sample ID: **1610F85-001DMS** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328412**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231722** Analysis Date: **10/27/2016** Seq No: **7125615**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231722

Sample ID: **1610F85-001DMS** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328412**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231722** Analysis Date: **10/27/2016** Seq No: **7125615**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	92.40	5.00	100.0	0.2060	92.2	75	125				
Barium	122.5	10.0	100.0	27.38	95.1	75	125				
Cadmium	95.71	0.700	100.0		95.7	75	125				
Chromium	93.14	5.00	100.0	0.7530	92.4	75	125				
Copper	90.77	2.00	100.0	1.263	89.5	75	125				
Iron	1448	100	1000	482.5	96.6	75	125				
Lead	96.94	1.00	100.0	0.3000	96.6	75	125				
Manganese	221.1	5.00	100.0	119.2	102	75	125				
Selenium	93.90	5.00	100.0	0.8500	93.0	75	125				

Sample ID: **1610F85-001DMSD** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328412**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020A** BatchID: **231722** Analysis Date: **10/27/2016** Seq No: **7125616**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	96.94	5.00	100.0	0.2060	96.7	75	125	92.40	4.80	20	
Barium	129.1	10.0	100.0	27.38	102	75	125	122.5	5.25	20	
Cadmium	95.71	0.700	100.0		95.7	75	125	95.71	0	20	
Chromium	94.79	5.00	100.0	0.7530	94.0	75	125	93.14	1.76	20	
Copper	95.83	2.00	100.0	1.263	94.6	75	125	90.77	5.42	20	
Iron	1497	100	1000	482.5	101	75	125	1448	3.33	20	
Lead	102.3	1.00	100.0	0.3000	102	75	125	96.94	5.38	20	
Manganese	224.5	5.00	100.0	119.2	105	75	125	221.1	1.53	20	
Selenium	97.34	5.00	100.0	0.8500	96.5	75	125	93.90	3.60	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231794

Sample ID: **MB-231794** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328371**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **231794** Analysis Date: **10/26/2016** Seq No: **7124631**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	48.75	0	50.00		97.5	83.1	115				
Surr: Dibromofluoromethane	45.44	0	50.00		90.9	80.6	123				
Surr: Toluene-d8	52.25	0	50.00		104	85	115				

Sample ID: **LCS-231794** Client ID: Units: **ug/L** Prep Date: **10/26/2016** Run No: **328371**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **231794** Analysis Date: **10/26/2016** Seq No: **7124630**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.250	5.0	10.00		72.5	68.2	133				
Surr: 4-Bromofluorobenzene	49.43	0	50.00		98.9	83.1	115				
Surr: Dibromofluoromethane	46.72	0	50.00		93.4	80.6	123				
Surr: Toluene-d8	52.53	0	50.00		105	85	115				

Sample ID: **1610G57-004AMS** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/26/2016** Run No: **328371**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **231794** Analysis Date: **10/27/2016** Seq No: **7124637**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	176.7	5.0	10.00	143.0	338	53	135				S
Surr: 4-Bromofluorobenzene	49.34	0	50.00		98.7	83.1	115				
Surr: Dibromofluoromethane	46.07	0	50.00		92.1	80.6	123				
Surr: Toluene-d8	52.66	0	50.00		105	85	115				

Sample ID: **1610G57-004AMSD** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/26/2016** Run No: **328371**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **231794** Analysis Date: **10/27/2016** Seq No: **7124638**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	176.7	5.0	10.00	143.0	337	53	135	176.7	0.045	34.4	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231794

Sample ID: **1610G57-004AMSD** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/26/2016** Run No: **328371**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **231794** Analysis Date: **10/27/2016** Seq No: **7124638**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	49.64	0	50.00		99.3	83.1	115	49.34	0	0	
Surr: Dibromofluoromethane	45.40	0	50.00		90.8	80.6	123	46.07	0	0	
Surr: Toluene-d8	52.46	0	50.00		105	85	115	52.66	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231897

Sample ID: **MB-231897** Client ID: Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130266**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	4.784	0	5.000		95.7	64.9	131				

Sample ID: **LCS-231897** Client ID: Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130267**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09400	0.020	0.1000		94.0	60	140				
Surr: 4-Bromofluorobenzene	4.853	0	5.000		97.1	64.9	131				

Sample ID: **LCSD-231897** Client ID: Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130268**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.08600	0.020	0.1000		86.0	60	140	0.09400	8.89	20	
Surr: 4-Bromofluorobenzene	4.899	0	5.000		98.0	64.9	131	4.853	0	0	

Sample ID: **1610G57-004BMS** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130271**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.06637	0.020	0.0991		67.0	65.6	136				
Surr: 4-Bromofluorobenzene	4.955	0	4.953		100	64.9	131				

Sample ID: **1610G57-004BMSD** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **MSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130272**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.07380	0.020	0.1011		73.0	65.6	136	0.06637	10.6	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: 231897

Sample ID: **1610G57-004BMSD** Client ID: **GW-013926-101916-SAG-012** Units: **ug/L** Prep Date: **10/28/2016** Run No: **328585**
SampleType: **MSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **231897** Analysis Date: **10/28/2016** Seq No: **7130272**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	5.103	0	5.055		101	64.9	131	4.955	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: R327869

Sample ID: **MB-R327869** Client ID:
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1**
Units: **mg/L** Prep Date: Run No: **327869**
BatchID: **R327869** Analysis Date: **10/20/2016** Seq No: **7110958**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R327869** Client ID:
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1**
Units: **mg/L** Prep Date: Run No: **327869**
BatchID: **R327869** Analysis Date: **10/20/2016** Seq No: **7110959**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09790	0.0100	0.1000		97.9	90	110				

Sample ID: **1610G57-004GMS** Client ID: **GW-013926-101916-SAG-012**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1**
Units: **mg/L** Prep Date: Run No: **327869**
BatchID: **R327869** Analysis Date: **10/20/2016** Seq No: **7110964**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1330	0.0100	0.1000	0.03540	97.6	90	110				

Sample ID: **1610G57-004GMSD** Client ID: **GW-013926-101916-SAG-012**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1**
Units: **mg/L** Prep Date: Run No: **327869**
BatchID: **R327869** Analysis Date: **10/20/2016** Seq No: **7110965**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1360	0.0100	0.1000	0.03540	101	90	110	0.1330	2.23	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: R328031

Sample ID: **MB-R328031** Client ID: Units: **mg/L** Prep Date: Run No: **328031**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R328031** Analysis Date: **10/21/2016** Seq No: **7115491**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R328031** Client ID: Units: **mg/L** Prep Date: Run No: **328031**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R328031** Analysis Date: **10/21/2016** Seq No: **7115490**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	26.92	1.00	25.00		108	90	110				

Sample ID: **1610G57-004HMS** Client ID: **GW-013926-101916-SAG-012** Units: **mg/L** Prep Date: Run No: **328031**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R328031** Analysis Date: **10/21/2016** Seq No: **7115504**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	23.83	1.00	25.00		95.3	80	120				

Sample ID: **1610G57-004HMSD** Client ID: **GW-013926-101916-SAG-012** Units: **mg/L** Prep Date: Run No: **328031**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R328031** Analysis Date: **10/21/2016** Seq No: **7115505**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.28	1.00	25.00		101	80	120	23.83	5.91	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: **R328091**

Sample ID: **MB-R328091** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117634**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R328091** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117635**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.060	0.020	1.000		106	90	110				

Sample ID: **1610D70-001AMS** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117668**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.200	0.020	1.000	0.2040	99.6	90	110				

Sample ID: **1610F37-004FMS** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117651**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9870	0.020	1.000		98.7	90	110				

Sample ID: **1610D70-001AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **328091**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328091** Analysis Date: **10/24/2016** Seq No: **7117637**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.170	0.020	1.000	0.2040	96.6	90	110	1.200	2.53	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: R328092

Sample ID: **MB-R328092** Client ID: Units: **mg/L** Prep Date: Run No: **328092**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328092** Analysis Date: **10/24/2016** Seq No: **7117815**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R328092** Client ID: Units: **mg/L** Prep Date: Run No: **328092**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328092** Analysis Date: **10/24/2016** Seq No: **7117816**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.080	0.020	1.000		108	90	110				

Sample ID: **1610G57-004IMS** Client ID: **GW-013926-101916-SAG-012** Units: **mg/L** Prep Date: Run No: **328092**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328092** Analysis Date: **10/24/2016** Seq No: **7117825**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.060	0.020	1.000	0.08810	97.2	90	110				

Sample ID: **1610G57-004IMSD** Client ID: **GW-013926-101916-SAG-012** Units: **mg/L** Prep Date: Run No: **328092**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R328092** Analysis Date: **10/24/2016** Seq No: **7117827**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.060	0.020	1.000	0.08810	97.2	90	110	1.060	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: R328319

Sample ID: **MB-R328319** Client ID:
SampleType: **MBLK** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **328319**
BatchID: **R328319** Analysis Date: **10/20/2016** Seq No: **7122732**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R328319** Client ID:
SampleType: **LCS** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **328319**
BatchID: **R328319** Analysis Date: **10/20/2016** Seq No: **7122731**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	9.228	1.0	10.00		92.3	90	110				
Nitrate	4.894	0.25	5.000		97.9	90	110				
Sulfate	24.43	1.0	25.00		97.7	90	110				

Sample ID: **1610G54-002BMS** Client ID:
SampleType: **MS** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **328319**
BatchID: **R328319** Analysis Date: **10/20/2016** Seq No: **7122748**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	142.4	10	100.0	50.97	91.4	90	110				
Nitrate	67.73	2.5	50.00	19.20	97.1	90	110				
Sulfate	259.3	10	250.0	36.36	89.2	90	110				S

Sample ID: **1610G57-004FMS** Client ID: **GW-013926-101916-SAG-012**
SampleType: **MS** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **328319**
BatchID: **R328319** Analysis Date: **10/20/2016** Seq No: **7122737**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	29.21	1.0	10.00	20.73	84.8	90	110				S
Nitrate	6.129	0.25	5.000	1.084	101	90	110				
Sulfate	33.11	1.0	25.00	8.239	99.5	90	110				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-16

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: R328319

Sample ID: **1610G57-004FMSD** Client ID: **GW-013926-101916-SAG-012** Units: **mg/L** Prep Date: Run No: **328319**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R328319** Analysis Date: **10/20/2016** Seq No: **7122738**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	29.38	1.0	10.00	20.73	86.5	90	110	29.21	0.574	20	S
Nitrate	6.219	0.25	5.000	1.084	103	90	110	6.129	1.46	20	
Sulfate	33.15	1.0	25.00	8.239	99.6	90	110	33.11	0.110	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1610G57

ANALYTICAL QC SUMMARY REPORT

BatchID: **R328369**

Sample ID: **MB-R328369** Client ID: Units: **mg/L** Prep Date: Run No: **328369**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R328369** Analysis Date: **10/21/2016** Seq No: **7124403**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R328369** Client ID: Units: **mg/L** Prep Date: Run No: **328369**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R328369** Analysis Date: **10/21/2016** Seq No: **7124404**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	125.0	3.00	125.0		100	75	125				

Sample ID: **1610G57-004EDUP** Client ID: **GW-013926-101916-SAG-012** Units: **mg/L** Prep Date: Run No: **328369**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R328369** Analysis Date: **10/21/2016** Seq No: **7124415**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	42.00	3.00						43.00	2.35	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Attachment C
Historical Analytical Results

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

N-27 11-SAG-105 /2011 njection	MW-27 GW-051811-DJB-005 5/18/2011 1st Post-injection	MW-27 GW-070611-EAH-001 7/6/2011 2nd Post-injection	MW-27 GW-101111-DJB-101 10/11/2011 3rd Post-injection	MW-27 GW-042412-AWY-002 4/24/2012 4th Post-injection	MW-27 GW-042412-AWY-003 4/24/2012 4th Post-injection Duplicate	MW-27 GW-103012-BCW-110 10/30/2012 5th Post-injection	MW-27 GW-041613-CRM-002 4/16/2013 6th Post-injection	MW-27 GW-013926-102313-DJB-101 10/23/2013 7th Post-injection	MW-27 GW-013926-042414-DWH-101 4/24/2014 8th Post-injection
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
-	-	-	-	-	-	-	-	-	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
-	-	-	-	-	-	-	-	-	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	0.53 J	5.0 U	5.0 U	0.48 J	0.54 J	10.0 U	10.0 U	1.0 U	1.0 U
0 U	50 UJ	50 U	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U
0 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
0 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
13 J	50 UJ	50 U	11 J	50 U	50 U	25.0 U	25.0 U	20 U	20 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
0 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
.2 J	5.0 UJ	0.70 J	5.0 U	0.69 J	0.73 J	0.67 J	0.40 J	0.46 J	1.0 U
0 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
8.6	1.0 J	5.0 U	5.0 U	0.65 J	5.0 U	2.1 J	1.3 J	1.8	1.3
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
0 U	5.0 UJ	6.2	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
17	5.8 J	6.2	4.1 J	5.8	5.9	4.0 J	3.7 J	3.2	2.2
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
800	**630**	**170**	**390**	**610**	**530**	**583**	**537**	**740**	**540**
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
13	2.4 J	5.0 U	5.0 U	1.9 J	2.2 J	3.7 J	2.9 J	**3.4**	**3.4**
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	0.23 J	5.0 U	5.0 U
0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

N-27 11-SAG-105 /2011 njection	MW-27 GW-051811-DJB-005 5/18/2011 1st Post-injection	MW-27 GW-070611-EAH-001 7/6/2011 2nd Post-injection	MW-27 GW-101111-DJB-101 10/11/2011 3rd Post-injection	MW-27 GW-042412-AWY-002 4/24/2012 4th Post-injection	MW-27 GW-042412-AWY-003 4/24/2012 4th Post-injection Duplicate	MW-27 GW-103012-BCW-110 10/30/2012 5th Post-injection	MW-27 GW-041613-CRM-002 4/16/2013 6th Post-injection	MW-27 GW-013926-102313-DJB-101 10/23/2013 7th Post-injection	MW-27 GW-013926-042414-DWH-101 4/24/2014 8th Post-injection
-	**1.72**	**18.3**	**1.07**	**2.83**	**2.20**	**8.51**	**27.7**	**13.1**	3.71 J
-	0.0053 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U
500 U	0.0500 U	0.0155 J	0.107	0.0733	0.0731	0.0384	0.037	0.0123	0.0075
.314	0.284	0.612	0.0811	0.0956	0.0826	0.196 J	0.684	0.334	0.11
-	0.0007 J	0.0011 J	0.0100 U	0.0100 U	0.0100 U	0.00063 J	0.0014	0.000756 J	0.001 U
050 U	0.0003 J	0.0001 J	-	0.0034 J	0.0033 J	0.005 U	0.005 U	0.0007 U	0.0007 U
050 U	-	-	0.0050 U	-	-	-	-	-	-
-	31.1	22.0	9.86	3.65	3.44	1.08	1.6	1.1	0.507
094 J	**0.0385**	**0.152**	**0.142**	**0.0529**	**0.0512**	0.0055 J	**0.0518**	**0.0246**	**0.00986**
-	0.0018 J	0.0108 J	0.0010 J	0.0017 J	0.0014 J	0.0028 J	0.0102	0.00625	0.005 U
011 J	0.0100 U	0.0059 J	0.0100 U	0.0100 U	0.0100 U	0.0023 J	0.0038 J	0.00311	0.002 U
.26	**0.781**	**15.7**	**0.937**	**2.27**	**1.71**	**6.08**	**20.5**	**10.7**	2.9 J
00 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	**0.114**	0.0428 J	0.1 U	0.1 U
.221	0.0100 U	0.0093 J	0.0100 U	0.0019 J	0.0027 J	0.005 U	0.0218	0.00781	0.00202
-	13.7	15.4	5.00	2.56	2.36	2.53	7.68	4.19	1.3 J
.637	**0.661**	**0.845**	**0.390**	**0.306**	**0.263**	**0.585**	**2.42**	**1.34**	0.225 J
.515	**0.490**	**0.320**	**0.127**	0.0172 J	0.0293 J	**0.0245**	**0.0152**	0.00215 J	**0.00834**
-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00007 J	0.00020 U
-	0.0018 J	0.0273	0.0045 J	0.0031 J	0.0024 J	0.0105 U	0.0411	0.0267	0.00502
-	8.83	30.3 J	11.9	3.73	3.37	3.31 J	7.54	4.12	1.42
200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U
-	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.005 U	0.001 U	0.001 U
-	**395**	**763**	**1130**	**616**	**578**	**201**	**121**	**76**	**68.5**
-	0.0200 U	0.0200 U	0.0200 UJ	0.0200 U	0.0200 U	0.01 U	0.01 U	0.000246 J	0.001 U
-	0.0016 J	0.0372	0.0495	0.482	0.486	0.547	0.434	0.233	0.0866
-	0.0186 J	0.0738	0.0094 J	0.0200 U	0.0200 U	0.0211	0.0551	0.0296	0.0114
-	0.194 J	0.200 U	0.086 J	0.200 U	0.200 U	0.10 U	0.10 U	0.020 U	0.020 U
-	5.41 J	5.58	5.87	4.52 J	4.66 J	4.6	4.3 J	6.8	6.7
-	0.0371 J	9.10 J	68.0	86.5	86.5	54	35.0	20.6	13.5
7.0	**377**	**1540**	**2560**	**924**	**898**	**130**	**46**	**20**	**14**
.99	5.02	4.61	6.87	6.63	6.63	7.0	8.59	5.71	6.31
.38	3.97	3.17	5.72	3.86	3.86	2.78	1.94	1.35	1.96
377	502	385	547	436	436	268	240	266	194

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

MW-27	MW-27	MW-27	MW-27	MW-27	MW-28	MW-28	MW-28	MW-28	MW-28
26-042414-DWH-102	GW-013926-101414-SAG-001	GW-013926-031715-SAG-001	GW-013926-102715-AWY-001	GW-013926-041216-SAG-101	GW-020311-SAG-107	GW-051811-DJB-004	GW-070611-EAH-002	GW-101111-SAG-002	GW-101111-SAG-003
4/24/2014	10/14/2014	3/17/2015	10/27/2015	4/12/2016	2/3/2011	5/18/2011	7/6/2011	10/11/2011	10/11/2011
Post-injection	9th Post-injection	10th Post-injection	11th Post-injection	12th Post-injection	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	3rd Post-injection
Duplicate									Duplicate
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	R	R	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	-	--	--	-	-	-	-	-	-
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	-	--	--	-	-	-	-	-	-
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
			150 U	150 U					
10 U	10 U	10 U	10 U	10 U	50 U	50 UJ	50 U	50 UJ	50 U
10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 UJ	10 U
10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 UJ	10 U
20 U	20 U	20 U	20 U	20 U	50 U	2.9 J	38 J	17 J	20 J
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 UJ	10 U	10 UJ	10 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.8	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 UJ	1.0 J	10 UJ	10 U
1.4	1.0 U	1.0 U	1.7	1.0 U	10	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	6.5	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 UJ	10 U	10 UJ	10 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2.3	1.5	1.7	1.4	1.3	13	3.9 J	2.0 J	1.7 J	5.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
520	**580**	**340**	**540**	**600**	**1800**	520 J	**94**	210 J	410 J
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	R	R	5.0 UJ	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
3.3	**3.9**	**3.4**	**3.9**	**2.6**	**13**	0.83 J	5.0 U	5.0 UJ	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 UJ	10 U	10 UJ	10 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

MW-27	MW-27	MW-27	MW-27	MW-27	MW-28	MW-28	MW-28	MW-28	MW-28
026-042414-DWH-102	GW-013926-101414-SAG-001	GW-013926-031715-SAG-001	GW-013926-102715-AWY-001	GW-013926-041216-SAG-101	GW-020311-SAG-107	GW-051811-DJB-004	GW-070611-EAH-002	GW-101111-SAG-002	GW-101111-SAG-003
4/24/2014	10/14/2014	3/17/2015	10/27/2015	4/12/2016	2/3/2011	5/18/2011	7/6/2011	10/11/2011	10/11/2011
Post-injection	9th Post-injection	10th Post-injection	11th Post-injection	12th Post-injection	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	3rd Post-injection
Duplicate									Duplicate
2 J	**21.9**	**15.1**	**13.4**	**11.7**	-	**2.73**	**6.30**	**6.19**	**6.15**
0.005 U	0.005 U	0.005 U	0.000146 J	0.000327 J	-	0.0200 U	0.0200 U	0.0200 U	0.0200 U
0.00616	0.0101	0.00682	0.00386 J	0.00596	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U
0.0774	0.632	0.422	0.5	0.388	0.240	0.835	0.832	0.244 J	0.130 J
0.001 U	0.0015	0.001 U	0.000969 J	0.000763 J	-	0.0011 J	0.0026 J	0.0020 J	0.0021 J
0.0007 U	0.000635 J	0.000249 J	0.0007 U	0.000535 J	0.0050 U	0.0008 J	0.0016 J	-	-
-	-		--	-	0.0050 U	-	-	0.0010 J	0.0012 J
0.386	2.73	2.29	1.8	1.92	-	80.9	230	153	167
0.00699	**0.0367**	**0.0266**	**0.0235**	**0.02**	0.0057 J	**0.0156**	**0.0271**	**0.0731**	**0.0745**
0.005 U	0.00932	0.00615	0.00586	0.00483 J	-	0.0023 J	0.0040 J	0.0070 J	0.0066 J
0.002 U	0.00594	0.00359	0.00396	0.00221	0.0100 U	0.0100 U	0.0020 J	0.0018 J	0.0017 J
1.67 J	**17.6**	**12.5**	**11.7**	**8.85**	**2.37**	**1.42**	**0.939**	**1.63**	**1.04**
0.1 U	**0.12**	0.1 U	0.0193 J	0.1 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
0.0014	0.0108	0.00658	0.00951	0.00804	0.0013 J	0.0100 U	0.0015 J	0.0100 U	0.0100 U
0.755 J	8.01	5.77	5.26	4.15	-	36.7	90.5	66.8	73.1
0.128 J	**1.75**	**1.11**	**0.859**	**0.754**	**0.211**	**0.239**	**6.17**	**5.24**	**4.60**
0.0115	**0.025**	**0.0118**	**0.0226**	0.00204 J	**0.180**	**0.137**	**5.81**	**4.23**	**4.30**
0.00020 U	0.00020 U	0.00020 U	0.00008 J	0.00020 U	-	0.00004 J	0.00021 U	0.00002 J	0.00020 U
0.005 U	0.0286	0.0193	0.0179	0.0143	-	0.0057 J	0.0074 J	0.0041 J	0.0037 J
0.957	7.91	5.59	5.71	3.88	-	8.61	19.6 J	23.7	23.8
0.005 U	0.00377 J	0.00361 J	0.000764 J	0.000313 J	0.0200 U	0.0200 U	0.0085 J	0.0200 U	0.0200 U
0.001 U	0.000031 J	0.001 U	0.000055 J	0.000033 J	-	0.0100 U	0.0100 U	0.0100 U	0.0100 U
67.1	**49.6**	**50**	**48.6**	**42.6**	-	**169**	**221**	**537**	**556**
0.001 U	0.001 U	0.000226 J	0.000321 J	0.000234 J	-	0.0200 U	0.0200 U	0.0200 UJ	0.0200 UJ
0.0729	0.104	0.0751	0.0613	0.0776	-	0.0028 J	0.0014 J	0.0034 J	0.0019 J
0.01 U	0.0464	0.0327	0.036	0.0527	-	0.0273	0.0426	0.0475	0.0450
0.020 U	0.020 U	0.166 J	0.020 UJ	0.020 U	-	0.200 U	0.237	0.416	0.412
6.7	4.8	6.2	6.8	5.8	-	3.24	3.82	12.5 U	8.86
9.92	7.22	5.54	5.00 J	7.63	-	0.0105 UJ	0.0262 J	0.0585	0.0626
14	**9.7**	**14**	**11**	**10**	**4.2**	**77.5**	**370**	**1310**	**1230**
-	6.15	5.55	5.93	5.36	5.21	4.65	3.93	4.08	4.08
-	4.51	2.01	2.69	0.0	1.54	1.14	1.64	9.05	9.05
-	196	179	326	335	395	532	550	496	496

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
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Greer, Spartanburg County, South Carolina

W-28 12-AWY-001 4/2012 it-Injection	MW-28 GW-103012-BCW-108 10/30/2012 5th Post-injection	MW-28 GW-041613-CRM-001 4/16/2013 6th Post-injection	MW-28 GW-013926-102313-SAG-005 10/23/2013 7th Post-injection	MW-28 GW-013926-042414-DWH-103 4/24/2014 8th Post-injection	MW-28 GW-013926-101414-SAG-002 10/14/2014 9th Post-injection	MW-28 GW-013926-101414-SAG-003 10/14/2014 9th Post-injection Duplicate	MW-28 GW-013926-031715-SAG-002 3/17/2015 10th Post-injection	MW-28 GW-013926-102715-AWY-002 10/27/2015 11th Post-injection	MW-28 GW-013926-102715-AWY-003 10/27/2015 11th Post-injection Duplicate
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
-	-	-	-	1.0 U	-	-	--	--	--
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	0.020 U	0.020 U	0.020 U	0.021 U	0.020 U	0.020 U	0.020 U	0.021 U	0.020 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
-	-	-	-	1.0 U	-	-	--	--	--
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
							150 U	150 U	
50 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
10 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
10 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
.2 J	25.0 U	25.0 U	14 J	20 U	20 U	20 U	20 U	20 U	20 U
.44 J	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	0.65 J	0.64 J	0.60 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
10 U	0.97 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	1.3 J	1.4 J	1.4	1.4	1.0 U	1.0 U	1.0 U	1.8	1.8
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
.4 J	3.7 J	3.9 J	3.7	2.7	1.5	1.4	1.6	1.6	1.6
.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
53	**451**	**820**	**890**	**650**	**570**	**590**	**320**	**590**	**630**
.0 U	0.27 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
.0 U	2.6 J	3.6 J	**2.8**	**3.2**	**3.5**	**3.6**	**3.5**	**3.9**	**4.3**
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
10 U	0.30 J	0.28 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

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ISCO Performance Groundwater Monitoring
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Greer, Spartanburg County, South Carolina

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3.51	**3.24**	**1.11**	**11.7**	**3.44**	**23.1**	**19.3**	**17.6**	**16.5**	**16.2**
200 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
500 U	0.0034 J	0.0092 J	0.0359	0.0506	0.0293	0.0315	0.0218	0.0132	0.0133
.155	0.08 J	0.0542 J	0.391	0.0992	0.663	0.511	0.521	0.596	0.594
016 J	0.001 U	0.001 U	0.00081 J	0.001 U	0.00139	0.00112	0.001 U	0.00101	0.000965 J
050 U	0.005 U	0.005 U	0.000176 J	0.0007 U	0.000311 J	0.000232 J	0.000267 J	0.0007 U	0.0007 U
-	-	-	-	-	-	-		--	--
30.5	5.47	0.717	2.6	0.439	2.12	1.83	2.3	1.54	1.48
.194	**0.105**	**0.0454**	**0.0457**	**0.0167**	**0.0428**	**0.0366**	**0.0328**	**0.0295**	**0.0292**
060 J	0.0033 J	0.005 U	0.00696	0.005 U	0.00993	0.00864	0.00748	0.00693	0.00683
100 U	0.025 U	0.025 U	0.0041	0.002 U	0.0079	0.00691	0.00566	0.00599	0.00556
3.94	**2.47**	**1.06**	**11.6**	**3.08**	**19.9**	**16.6**	**15**	14.6	14.6
100 U	0.0192 J	0.05 U	0.1 U	0.1 U	0.464	0.404	0.018 J	0.028 J	0.0334 J
061 J	0.005 U	0.0042 J	0.00804	0.00179	0.0108	0.0088	0.00745	0.0115	0.0116
24.7	2.87	0.692	5.21	1.28	8.63	7.08	6.28	5.94	5.85
2.36	**0.532**	**0.0906**	**0.346**	**0.103**	**0.563**	**0.48**	**0.455**	**0.423**	**0.41**
.28 J	**0.296**	**0.0527**	**0.0337**	**0.0117**	**0.0589**	**0.056**	**0.00762**	**0.00877**	**0.00857**
020 U	0.0002 U	0.0002 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00004 J	0.00006 J
091 J	0.005 U	0.0059	0.0172	0.005 U	0.0266	0.0217	0.02	0.0188	0.0189
17.1	6.98	5 U	5.3	1.82	8.71	7.3	6.26	6.07	6.14
104 J	0.01 U	0.01 U	0.005 U	0.005 U	0.00341 J	0.00291 J	0.00377 J	0.000535 J	0.000626 J
100 U	0.005 U	0.005 U	0.001 U	0.001 U	0.0000408 J	0.0000322 J	0.0000352 J	0.000058 J	0.00006 J
988	**283**	**103**	**64.8**	**72.6**	**60.4**	**66.9**	**70.1**	**74.5**	**75.6**
200 U	0.01 U	0.01 U	0.000254 J	0.001 U	0.001 U	0.001 U	0.000242 J	0.000317 J	0.000308 J
0132	0.0068	0.0047 J	0.032	0.14	0.231	0.253	0.236	0.177	0.177
0427	0.0122	0.01 U	0.0327	0.01 U	0.0457	0.0375	0.0338	0.0386	0.0368
.209	0.10 U	0.10 U	0.020 U	0.020 U	0.020 U	0.020 U	0.188 J	0.020 UJ	0.020 UJ
2.5 U	5.6	4.6 J	4.5	5.7	4.9	5.1	5.5	6.0	6.4
0692	0.46	3.04	16.3	33.2	22.8	25.0	18.9	17.0 J	17.3 J
884	**500**	**180**	**59**	**30**	**14**	**15**	**14**	**12**	**12**
4.69	5.32	7.04	5.56	5.69	5.99	-	5.98	6.19	-
3.58	4.92	2.69	3.86	2.01	3.54	-	2.29	3.3	-
374	379	272	237	199	200	-	151	325	-

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

MW-28 26-041216-MRB-001 4/12/2016 Post-injection	MW-32 GW-020311-EAH-008 2/3/2011 Pre-injection	MW-32 GW-051711-DJB-003 5/17/2011 1st Post-injection	MW-32 GW-070611-EAH-003 7/6/2011 2nd Post-injection	MW-32 GW-101111-SAG-001 10/11/2011 3rd Post-injection	MW-32 GW-042412-BCW-100 4/24/2012 4th Post-injection	MW-32 GW-103012-BCW-109 10/30/2012 5th Post-injection	MW-32 GW-041613-CRM-003 4/16/2013 6th Post-injection	MW-32 GW-013926-102313-SAG-004 10/23/2013 7th Post-injection	MW-32 GW-013926-042414-DWH-104 4/24/2014 8th Post-injection
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
2.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
-	-	-	-	-	-	-	-	-	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
0.020 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	0.020 U	0.019 U	0.020 U	0.020 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
-	-	-	-	-	-	-	-	-	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
150 U									
10 U	50 U	50 U	50 UJ	50 UJ	50 U	10.0 U	10.0 U	10 U	10 U
10 U	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	10 U	10 U
10 U	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	10 U	10 U
20 U	50 U	50 U	25 J	13 J	5.9 J	25.0 U	25.0 U	25 U	20 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	4.0 J	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	22	9.6	10 J	11 J	4.5 J	1.7 J	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
5.0 U	5.0 U	4.8 J	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
2.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	1.4 J	1.5 J	7.5 J	5.0 UJ	0.45 J	0.76 J	0.63 J	0.38 J	1.0 U
1.0 U	10 U	10 U	5.8 J	10 UJ	10 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	8.2	5.0 U	5.0 UJ	5.0 UJ	0.64 J	2.7 J	3.3 J	1.7	3.6
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
2.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
1.0 U	5.0 U	5.0 U	7.1 J	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
2.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
2.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
1.8	14	6.7	5.0 UJ	0.90 J	2.5 J	2.9 J	3.3 J	2.2	3.0
5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
900	**2000**	**2000**	13 J	120 J	**200**	**453**	**874**	**570**	**1200**
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	0.31 J	10.0 U	1.0 U	1.0 U
2.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
2.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
3.6	**13**	2.2 J	5.0 UJ	5.0 UJ	1.2 J	4.6 J	6.2 J	**3.4**	**6.8**
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
5.0 U	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	0.23 J	5.0 U	5.0 U
1.0 U	2.0 U	2.0 U	2.0 UJ	2.0 UJ	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U

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22.5	-	**7.99**	**2.74**	**1.46**	**0.661**	**1.3**	**1.29**	**5.4**	**0.749**
0.000222 J	-	0.0024 J	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U
0.00965	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0026 J	0.01 U	0.01 U	0.00106 J	0.005 U
0.812	0.294	0.533	0.576	0.0462	0.0385	0.0609 J	0.066 J	0.175	0.075
0.00146	-	0.0012 J	0.0016 J	0.0013 J	0.0100 U	0.001 U	0.001 U	0.000842 J	0.001 U
0.000212 J	0.0050 U	0.0050 U	0.0024 J	-	0.0050 U	0.005 U	0.005 U	0.0007 U	0.0007 U
-	0.0050 U	-	-	0.0017 J	-	-	-	-	-
1.95	-	90.1	517	415	65.8	14.3	3.72	4.37	3.05
0.0384	**0.0427**	**0.0332**	**0.0638**	**0.216**	**0.143**	**0.106**	**0.078**	**0.0417**	**0.0234**
0.00826	-	0.0049 J	0.0012 J	0.0033 J	0.0012 J	0.0026 J	0.005 U	0.00459 J	0.005 U
0.00452	0.0071 J	0.0088 J	0.0041 J	0.0031 J	0.0100 U	0.025 U	0.025 U	0.00555	0.002 U
17.7	**11.4**	**13.1**	**2.19**	**0.371**	**0.817**	**1.8**	**2.05**	**8.45**	**1.33**
0.1 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.02 J	0.05 U	0.00927 J	0.1 U
0.0159	0.0043 J	0.0053 J	0.0012 J	0.0100 U	0.0023 J	0.005 U	0.005 U	0.0047	0.00105
8.29	-	35.3	161	121	22.6	4.4	1.53	3.12	1.08
0.496	**0.175**	**0.143**	**0.0375**	**0.0756**	**0.0299**	**0.0709**	**0.0297**	**0.115**	**0.0202**
0.00983	**0.0368**	0.0150 U	0.0009 J	**0.0545**	0.0184 J	**0.0223**	**0.0068**	**0.00885**	**0.00524**
0.00020 U	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00004 J	0.00020 U
0.0256	-	0.0083 J	0.0152 J	0.0086 J	0.0022 J	0.0079 U	0.0095	0.00646	0.005 U
7.04	-	8.48	26.5 J	19.0	4.90	3.53 J	5 U	3.28	1.53
0.000513 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U
0.000067 J	-	0.0100 U	0.0017 J	0.0100 U	0.0100 U	0.005 U	0.005 U	0.000265 J	0.001 U
60.4	-	**83.9**	**282**	**320**	**146**	**91.3**	**57.1**	**33.6**	**37.5**
0.000456 J	-	0.0200 U	0.0200 U	0.0200 UJ	0.0200 U	0.01 U	0.01 U	0.000124 J	0.001 U
0.141	-	0.0324	0.0049 J	0.0012 J	0.0026 J	0.0066	0.0067	0.0237	0.00562
0.0692	-	0.0408	0.0831	0.0649	0.0203	0.0115	0.0052 J	0.0147	0.0283
0.020 U	-	0.200 U	0.200 U	0.118 J	0.200 U	0.10 U	0.10 U	0.020 U	0.020 U
5.4	-	2.46	1.13	3.17	3.32	5.6	4.2 J	3.8	4.4
13.8	-	0.0771 J	0.0549 J	0.0931	0.0871	0.40	0.400	0.344	0.576
13	**160**	**84.1**	**250**	**1230**	**505**	**210**	**96**	**49**	**47**
6.05	4.98	5.9	3.44	3.91	5.6	5.51	7.03	5.32	5.46
5.32	6.31	4.86	1.74	5.45	8.03	3.19	1.93	4.46	3.05
239	363	478	597	491	315	342	239	265	212

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Greer, Spartanburg County, South Carolina

MW-32 26-101414-SAG-004 10/14/2014 Post-injection	MW-32 GW-013926-031715-SAG-003 3/17/2015 10th Post-injection	MW-32 GW-013926-031715-SAG-004 3/17/2015 10th Post-injection Duplicate	MW-32 GW-013926-102715-AWY-004 10/27/2015 11th Post-injection	MW-32 GW-013926-041216-MRB-002 4/12/2016 12th Post-injection	MW-32 GW-013926-041216-MRB-003 4/12/2016 12th Post-injection Duplicate	MW-39 GW-021611-DJB-216 2/16/2011 Pre-injection	MW-39 GW-021611-DJB-217 2/16/2011 Pre-injection Duplicate	MW-39 GW-051711-DJB-002 5/17/2011 1st Post-injection	MW-39 GW-070611-DJB-103 7/6/2011 2nd Post-injection
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
-	--	--	--	-	-	-	-	-	-
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
0.021 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
-	--	--	--	-	-	-	-	-	-
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
				150 U	150 U				
10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	50 U	50 U
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
20 U	20 U	20 U	20 U	20 U	20 U	50 U	50 U	50 U	50 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**60**	**57**	**220**	**220**
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	10 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	10 U
2.9	3.4	3.4	2.9	1.0 U	1.4	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	10 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.3	1.7	1.6	1.4	1.2	0.99 J	9.1	9.0	11	11
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
870	**1000**	**1000**	**870**	**950**	**960**	**330**	**360**	**220**	**210**
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
5.5	**6.5**	**6.8**	**5.7**	4.6	4.4	3.6 J	3.2 J	5.0 U	1.5 J
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U

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Greer, Spartanburg County, South Carolina

MW-32 26-101414-SAG-004 10/14/2014 Post-injection	MW-32 GW-013926-031715-SAG-003 3/17/2015 10th Post-injection	MW-32 GW-013926-031715-SAG-004 3/17/2015 10th Post-injection Duplicate	MW-32 GW-013926-102715-AWY-004 10/27/2015 11th Post-injection	MW-32 GW-013926-041216-MRB-002 4/12/2016 12th Post-injection	MW-32 GW-013926-041216-MRB-003 4/12/2016 12th Post-injection Duplicate	MW-39 GW-021611-DJB-216 2/16/2011 Pre-injection	MW-39 GW-021611-DJB-217 2/16/2011 Pre-injection Duplicate	MW-39 GW-051711-DJB-002 5/17/2011 1st Post-injection	MW-39 GW-070611-DJB-103 7/6/2011 2nd Post-injection
6.66	**9.86**	**9.7**	5.9	1.2	1.32	-	-	**1.33**	**0.521**
0.005 U	0.005 U	0.005 U	0.005 U	0.00017 J	0.000154 J	-	-	0.0200 U	0.0200 U
0.0024 J	0.00308 J	0.00307 J	0.000852 J	0.000532 J	0.000532 J	0.0500 U	0.0500 U	0.0500 U	0.0500 U
0.202	0.27	0.264	0.26	0.0883	0.0947	0.193	0.190	0.345	0.687
0.000922 J	0.001 U	0.001 U	0.000791 J	0.000197 J	0.000221 J	-	-	0.0004 J	0.0007 J
0.00035 J	0.000175 J	0.000158 J	0.000134 J	0.0007 U	0.0007 U	0.0050 U	0.0050 U	0.0050 U	0.0002 J
-			--	-	-	0.0001 J	0.0050 U	-	-
4.43	4.75	4.72	3.95	2.83	2.58	-	-	1.80	2.52
0.0293	**0.035**	**0.035**	**0.0208**	0.00957	0.0107	0.0008 J	0.0009 J	0.0013 J	0.0020 J
0.00389 J	0.00515	0.00503	0.00354 J	0.000848 J	0.000921 J	-	-	0.0073 J	0.0129 J
0.00804	0.00947	0.00916	0.0071	0.00196 J	0.00148 J	0.0010 J	0.0488	0.0012 J	0.0100 U
9.36	**13.2**	**13.1**	**8.33**	1.77	1.95	-	-	**0.835**	**0.274**
0.217	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	-	-	0.100 U	0.100 U
0.00454	**0.00559**	**0.00546**	**0.00596**	0.0013	0.00136	0.0100 U	0.0100 U	0.0027 J	0.0006 J
2.31	2.83	2.82	2.4	1.12	1.19	-	-	4.03	7.70
0.0996	**0.136**	**0.134**	**0.0963**	0.0178	0.0202	-	-	**0.0939**	**0.0962**
0.0233	**0.0174**	**0.0156**	**0.00686**	0.00268 J	0.00421 J	-	-	**0.0855**	**0.0962**
0.00077	0.00020 U	0.00020 U	0.00005 J	0.00020 U	0.00008 J	-	-	0.00020 U	0.00020 U
0.00603	0.00865	0.00843	0.00546	0.00249 J	0.00262 J	-	-	0.0010 J	0.0017 J
2.9	3.28	3.23	2.94	1.48	1.56	-	-	4.55	6.20 J
0.00172 J	0.00299 J	0.00297 J	0.000438 J	0.000638 J	0.000423 J	0.0200 U	0.0200 U	0.0045 J	0.0200 U
0.000365 J	0.000394 J	0.000383 J	0.000188 J	0.000051 J	0.000042 J	-	-	0.0100 U	0.0100 U
37.1	**35.5**	**36.2**	**31**	27.5	29.1	-	-	**9.42**	**17.7**
0.001 U	0.000123 J	0.00012 J	0.000099 J	0.001 U	0.001 U	-	-	0.0200 U	0.0200 U
0.026	0.0363	0.0356	0.0222	0.00668	0.0075	-	-	0.0011 J	0.0653
0.0146	0.0195	0.0192	0.0207	0.0272 J	0.0117 J	-	-	0.0115 J	0.0180 J
0.020 U	0.179 J	0.164 J	0.020 UJ	0.020 U	0.020 U	-	-	0.200 U	0.200 U
4.4	4.6	4.6	5.3	5.4	5.4	-	-	5.06	5.24
0.509	0.888	0.896	0.885	0.692	0.760	-	-	0.0112 J	0.0240 J
45	**30**	**29**	**23**	9.2	10	**1.2**	**1.1**	1.43 U	**4.40**
5.64	5.57	-	5.69	-	5.71	4.24	4.24	5.67	4.1
3.92	2.63	-	4.47	-	4.50	5.23	5.23	5.73	4.7
220	160	-	334	-	195	328	328	403	447

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

N-39 11-DJB-102 1/2011 t-injection	MW-39 GW-042412-BCW-101 4/24/2012 4th Post-injection	MW-39 GW-103012-BCW-106 10/30/2012 5th Post-injection	MW-39 GW-103012-BCW-107 10/30/2012 5th Post-injection Duplicate	MW-39 GW-041613-CRM-004 4/16/2013 6th Post-injection	MW-39 GW-041613-CRM-005 4/16/2013 6th Post-injection Duplicate	MW-39 GW-013926-102313-SAG-006 10/24/2013 7th Post-injection	MW-39 GW-013926-042514-DWH-105 4/25/2014 8th Post-injection	MW-39 GW-013926-101414-SAG-005 10/14/2014 9th Post-injection	MW-39 GW-013926-031715-SAG-005 3/17/2015 10th Post-injection
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
-	-	-	-	-	-	-	1.0 U	-	--
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	0.020 U	0.021 U	0.020 U	0.020 U	0.020 U	0.020 U	0.021 U	0.021 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
-	-	-	-	-	-	-	1.0 U	-	--
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	50 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U
0 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U
0 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U
6 J	11 J	25.0 U	10.1 J	25.0 U	25.0 U	12 J	20 U	20 U	20 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
70	**150**	**248**	**239**	**132**	**140**	**73**	**6.1**	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	0.87 J	0.68 J	0.80 J	0.50 J	0.45 J	0.73 J	1.0 U	1.0 U	1.0 U
0 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
0 U	5.0 U	0.87 J	1.1 J	0.48 J	0.45 J	1.0 U	1.0 U	1.0 U	1.0 U
0 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	0.94 J	1.3 J	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
6	5.4	1.6 J	1.9 J	1.4 J	1.4 J	0.52 J	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
00	**130**	**56.0**	**62.8**	**168**	**136**	**46**	**160**	**46**	**24**
0 U	5.0 U	10.0 U	0.28 J	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
0 U	5.0 U	10.0 U	10.0 U	0.54 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U
0 U	2.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0 U	5.0 U	**12.9**	**14.9**	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

W-39	*MW-39*	*MW-39*	*MW-39*	*MW-39*	*MW-39*	*MW-39*	*MW-39*	*MW-39*	*MW-39*
11-DJB-102	*GW-042412-BCW-101*	*GW-103012-BCW-106*	*GW-103012-BCW-107*	*GW-041613-CRM-004*	*GW-041613-CRM-005*	*GW-013926-102313-SAG-006*	*GW-013926-042514-DWH-105*	*GW-013926-101414-SAG-005*	*GW-013926-031715-SAG-005*
1/2011	*4/24/2012*	*10/30/2012*	*10/30/2012*	*4/16/2013*	*4/16/2013*	*10/24/2013*	*4/25/2014*	*10/14/2014*	*3/17/2015*
t-injection	*4th Post-injection*	*5th Post-injection*	*5th Post-injection Duplicate*	*6th Post-injection*	*6th Post-injection Duplicate*	*7th Post-injection*	*8th Post-injection*	*9th Post-injection*	*10th Post-injection*
525	**1.52**	**0.732**	**0.707**	**1.52**	**1.16**	**6.08**	**0.228**	**1.85**	**3.06**
200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	0.000392 J	0.005 U	0.005 U	0.005 U
500 U	0.0023 J	0.01 U	0.01 U	0.01 U	0.01 U	0.000373 J	0.005 U	0.005 U	0.000314 J
795	0.393	0.172 J	0.162 J	0.215	0.216	0.256	0.0606	0.196	0.287
008 J	0.0100 U	0.00053 J	0.00052 J	0.001 U	0.001 U	0.00116	0.001 U	0.000479 J	0.000517 J
-	0.0050 U	0.005 U	0.005 U	0.005 U	0.005 U	0.000404 J	0.0007 U	0.00141	0.000333 J
050 U	-	-	-	-	-	-	-	-	
.91	1.56	**1.66**	**1.58**	**1.73**	**2**	**2.27**	**1.42**	**1.23**	1.72
032 J	0.0063 J	0.0082 J	**0.0111**	0.007 J	0.0064 J	**0.0116**	**0.00745**	**0.00728**	**0.00681**
105 J	0.0072 J	0.0049 J	0.005	0.004 J	0.0038 J	0.0083	0.005 U	0.00324 J	0.0063
100 U	0.0100 U	0.025 U	0.025 U	0.025 U	0.025 U	0.00319	0.002 U	0.00308	0.00272
333	**1.33**	**0.573**	**0.505**	**1.26**	**0.927**	**6.79**	**0.117**	**1.96**	**2.82**
00 U	0.100 U	**0.0767**	0.05 U	0.05 U	0.018 J	0.0219 J	0.1 U	0.1 U	0.1 U
100 U	0.0050 J	0.005 U	0.005 U	0.0047 J	0.0048 J	0.0079	0.001 U	0.00439	0.00649
.95	**6.55**	**5.19**	**5.12**	**4.74**	**4.79**	**6.93**	**2.42**	**2.65**	4.24
538	**0.0243**	**0.0178**	**0.0181**	**0.026**	**0.0227**	**0.102**	**0.00578**	**0.0521**	**0.0823**
358	0.0088 J	0.0285 J	0.0115 J	**0.0113**	**0.012**	**0.0133**	0.005 U	**0.0264**	**0.0479**
003 J	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00005 J	0.00020 U	0.00020 U	0.00020 U
095 J	0.0015 J	0.005 U	0.005 U	0.005 U	0.005 U	0.00321 J	0.005 U	0.005 U	0.002 J
.15	5.70	4.98 J	4.96 J	4.79 J	4.81 J	6.75	3.2	3.97	5.03
200 U	0.0046 J	0.01 U	0.01 U	0.01 U	0.01 U	0.00117 J	0.005 U	0.000708 J	0.000639 J
100 U	0.0100 U	0.005 U	0.005 U	0.005 U	0.005 U	0.001 U	0.001 U	0.0000351 J	0.0000452 J
2.0	**33.0**	**43.4**	**43.6**	**42.3**	**42.9**	**43.3**	**28.4**	**14.3**	**12.4**
00 UJ	0.0200 U	0.01 U	0.01 U	0.01 U	0.01 U	0.000328 J	0.001 U	0.001 U	0.000172 J
100 U	0.0021 J	0.005 U	0.005 U	0.005 U	0.005 U	0.0134	0.005 U	0.00392 J	0.00549
185 J	0.0187 J	0.0118	0.0119	0.0136	0.0176	0.0345	0.01 U	0.0172	0.0201
026 J	0.200 U	0.10 U	0.10 U	0.10 U	0.10 U	0.032	0.020 U	0.020 U	0.020 U
.28	3.55	4.2	4.1	3.9 J	3.9 J	3.2	3.4	2.7	4.9
0351	0.0433	0.25 U	0.25 U	0.0627	0.0604	0.0515	0.0722	0.0462	0.0380
.29	**39.9**	**63**	**60**	**55**	**60**	**66**	**57**	**26**	**13**
.43	4.65	4.40	4.40	6.21	6.21	4.71	4.47	4.93	4.72
.91	8.12	6.95	6.95	4.86	4.86	7.97	6.42	5.33	3.75
44	379	438	438	384	384	309	183	268	212

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

MW-39 26-102715-AWY-005 10/27/2015 Post-injection	MW-39 GW-013926-041216-MRB-004 4/12/2016 12th Post-injection	MW-40 GW-021611-DJB-218 2/16/2011 Pre-injection	MW-40 GW-051711-DJB-001 5/17/2011 1st Post-injection	MW-40 GW-070611-DJB-101 7/6/2011 2nd Post-injection	MW-40 GW-070611-DJB-102 7/6/2011 2nd Post-injection Duplicate	MW-40 GW-101111-SAG-004 10/11/2011 3rd Post-injection	MW-40 GW-042412-BCW-102 4/24/2012 4th Post-injection	MW-40 GW-102912-BCW-105 10/29/2012 5th Post-injection	MW-40 GW-041613-EAH-101 4/16/2013 6th Post-injection
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
--	-	-	-	-	-	-	-	-	-
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
0.020 U	0.020 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
--	-	-	-	-	-	-	-	-	-
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
150 U	150 U								
10 U	10 U	50 U	50 U	50 U	50 U	50 U	50 U	10.0 U	10.0 U
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
20 U	20 U	50 U	50 U	50 U	50 U	50 U	4.0 J	25.0 U	25.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.31 J
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	1.2 J	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	3.2 J	5.0 U	3.1 J	5.0 U	2.3 J	10.0 U	2.0 J
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
35	**35**	**71**	**54**	**77**	**79**	**64**	**42**	**29.3**	**47.1**
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	1.5 J	1.7 J	5.0 U	0.98 J	10.0 U	0.73 J
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U
1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

MW-39 26-102715-AWY-005 10/27/2015 Post-injection	MW-39 GW-013926-041216-MRB-004 4/12/2016 12th Post-injection	MW-40 GW-021611-DJB-218 2/16/2011 Pre-injection	MW-40 GW-051711-DJB-001 5/17/2011 1st Post-injection	MW-40 GW-070611-DJB-101 7/6/2011 2nd Post-injection	MW-40 GW-070611-DJB-102 7/6/2011 2nd Post-injection Duplicate	MW-40 GW-101111-SAG-004 10/11/2011 3rd Post-injection	MW-40 GW-042412-BCW-102 4/24/2012 4th Post-injection	MW-40 GW-102912-BCW-105 10/29/2012 5th Post-injection	MW-40 GW-041613-EAH-101 4/16/2013 6th Post-injection
1.86	**1.86**	-	**6.04**	**3.48**	**3.18**	**0.810**	**1.67**	**1.16**	**2.52**
0.005 U	0.000238 J	-	0.0020 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U
0.005 U	0.000219 J	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0036 J	0.003 J	0.004 J
0.2	0.213	0.198	0.230	0.257	0.263	0.247	0.231	0.226	0.176 J
0.000406 J	0.000495 J	-	0.0005 J	0.0004 J	0.0004 J	0.0003 J	0.0100 U	0.001 U	0.001 U
0.000253 J	0.0007 U	0.0003 J	0.0016 J	0.0006 J	0.0006 J	-	0.0050 U	0.00058 J	0.0014 J
--	-	0.0006 J	-	-	-	0.0010 J	-	-	-
1.33	1.03	-	1.79	1.49	1.57	1.47	1.36	1.34	1.56
0.00629	**0.00629**	0.0017 J	0.0018 J	0.0012 J	0.0012 J	0.0010 J	0.0100 U	0.01 U	0.01 U
0.00382 J	0.00383 J	-	0.0401	0.0379	0.0400	0.0407	0.037	0.0346	0.0399
0.00218	0.00143 J	0.0010 J	0.0019 J	0.0011 J	0.0100 U	0.0009 J	0.0100 U	0.025 U	0.025 U
1.87	**1.87**	-	**2.79**	**2.06**	**2.11**	**1.02**	**1.48**	**0.796**	**2.37**
0.1 U	0.1 U	-	**0.620**	**0.169**	**0.188**	0.0414 J	**0.147**	0.0171 J	**0.055**
0.00482	0.00703	0.0100 U	0.0136	0.0100	0.0094 J	0.0100 U	0.0068 J	0.005 U	0.007
3.06	3.26	-	3.61	3.67	3.86	3.78	3.47	3.35	3.24
0.048	**0.048**	-	**1.53**	**1.22**	**1.29**	**1.32**	**1.21**	**1.08**	**1.74**
0.0323	**0.0323**	-	**1.58**	**1.22**	**1.39**	**1.31**	1.33 J	**1.01**	**1.4**
0.00020 U	0.00007 J	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U
0.00121 J	0.00242 J	-	0.0083 J	0.0088 J	0.0117 J	0.0050 J	0.0063 J	0.0066	0.0348
4.42	3.78	-	6.63	6.19 J	6.30 J	6.14	5.78	5.84	6.34
0.000493 J	0.000164 J	0.0200 U	0.0044 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U
0.000086 J	0.000054 J	-	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.005 U
18.2	**18.2**	-	**8.23**	**7.38**	**7.70**	**8.44**	**8.14**	**7.06**	**10.5**
0.000121 J	0.000177 J	-	0.0022 J	0.0200 U	0.0200 U	0.0200 UJ	0.0200 U	0.01 U	0.01 U
0.00325 J	0.00362 J	-	0.0022 J	0.0013 J	0.0016 J	0.0008 J	0.0014 J	0.005 U	0.005 U
0.02	0.0202	-	0.0273	0.0253	0.0276	0.0228	0.0244	0.02	0.0239
0.020 UJ	0.020 U	-	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.10 U	0.10 U
4.5	4.2	-	2.87	3.72	3.68	3.18	3.1	3.2	3.7 J
0.0444	0.0316	-	0.0100 UJ	0.00896 J	0.00784 J	0.0100 U	0.0109 U	0.25 U	0.0100 U
22	**22**	**16**	**13.6**	**17.0**	**17.5**	**20.6**	**12.9**	**16**	**11**
4.86	4.59	4.14	5.91	4.98	4.98	4.58	5.1	4.95	5.49
6.08	4.07	3.9	3.85	3.66	3.66	5.91	2.9	3.79	0.85
350	305	294	177	242	242	314	230	318	140

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

MW-40	*MW-40*	*MW-40*	*MW-40*	*MW-40*	*MW-40*	*MW-40*	MW-40
26-102413-DJB-102	*GW-013926-102413-DJB-103*	*GW-013926-042514-DWH-106*	*GW-013926-101414-SAG-006*	*GW-013926-031715-SAG-006*	*GW-013926-102715-AWY-006*	*GW-013926-041216-MRB-005*	GW-013926-101816-SAG-004
10/24/2013	*10/24/2013*	*4/25/2014*	*10/14/2014*	*3/17/2015*	*10/27/2015*	*4/12/2016*	10/18/2016
Post-injection	*7th Post-injection*	*8th Post-injection*	*9th Post-injection*	*10th Post-injection*	*11th Post-injection*	*12th Post-injection*	*13th Post-injection*
	Duplicate						
0.399 J	0.223 J	**0.415**	**0.851**	**1.58**	**0.647**	**0.847**	**0.303**
0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.000255 J	0.005 U
0.005 U	0.005 U	0.005 U	0.005 U	0.000264 J	0.005 U	0.000206 J	0.005 U
0.225	0.217	0.196	0.191	0.195	0.168	0.182	0.17
0.000237 J	0.000276 J	0.001 U	0.000341 J	0.001 U	0.000256 J	0.000304 J	0.000283 J
0.00068 J	0.000728	0.0007 U	0.000515 J	0.000856	0.000467 J	0.000602 J	0.000464 J
-	-	-	-		--	-	--
1.35	1.29	1.37	1.31	1.29	1.3	1.33	1.13
0.005 U	0.005 U	0.005 U	0.000557 J	0.000864 J	0.000659 J	0.000951 J	0.005 U
0.031	0.0284	0.0232	0.0204	0.0201	0.01	0.0116	0.00687
0.000265 J	0.000296 J	0.002 U	0.00212	0.00343	0.00143 J	0.00184 J	0.000606 J
0.196	**0.196**	**0.262**	**0.683**	**1.05**	**0.533**	**0.643**	**0.201**
0.0457 J	0.0548 J	**0.139**	0.1 U	0.1 U	0.1 U	0.1 U	0.0399 J
0.00183	0.00177	0.00173	0.00311	0.00513	0.00224	0.00297	0.00112
3.15	3.03	2.75	2.71	2.6	2.13	2.41	2.23
0.965	**0.883**	**0.727**	**0.85**	**0.794**	**0.532**	**0.655**	**0.419**
0.942	**1.02**	**0.729**	**0.673**	**0.637**	**0.46**	**0.634**	**0.42**
0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00004 J	0.00020 U	0.00020 U
0.0163	0.0123	0.00549	0.00508	0.00459 J	0.00417 J	0.00555	0.00423 J
4.76	4.53	5.17	5.2	5.15	4.74	4.67	4.27
0.000771 J	0.00103 J	0.005 U	0.00098 J	0.00101 J	0.000952 J	0.000906 J	0.000508 J
0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.000037 J	0.001 U	0.001 U
7.73	**7.33**	**5.81**	**5.67**	**6.32**	**6.23**	**6.38**	5.35
0.000761 J	0.000735 J	0.001 U	0.001 U	0.000565 J	0.000526 J	0.000631 J	0.000573 J
0.000237 J	0.000183 J	0.005 U	0.005 U	0.0014 J	0.000561 J	0.000813 J	0.005 U
0.0134	0.0151	0.0141	0.0163	0.0194	0.0227	0.027	0.01
0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 UJ	0.020 U	0.020 U
3	3	2	1.4	1.9	1.6	2.9	1.6
0.00983 J	0.00762 J	0.0155	0.00313 J	0.0100 U	0.0100 U	0.0100 U	0.0100 U
15	**16**	**13**	**13**	**8.9**	**8.7**	**10**	**7.8**
3.99	-	4.63	4.99	4.9	4.92	4.28	4.93
3.59	-	6.44	3.81	2.37	5.41	3.09	2.49
405	-	244	265	203	392	324	371

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

MW-40 26-102413-DJB-102 10/24/2013 Post-injection	MW-40 GW-013926-102413-DJB-103 10/24/2013 7th Post-injection Duplicate	MW-40 GW-013926-042514-DWH-106 4/25/2014 8th Post-injection	MW-40 GW-013926-101414-SAG-006 10/14/2014 9th Post-injection	MW-40 GW-013926-031715-SAG-006 3/17/2015 10th Post-injection	MW-40 GW-013926-102715-AWY-006 10/27/2015 11th Post-injection	MW-40 GW-013926-041216-MRB-005 4/12/2016 12th Post-injection	MW-40 GW-013926-101816-SAG-004 10/18/2016 13th Post-injection
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
-	-	1.0 U	-	--	--	-	--
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
0.021 U	0.021 U	0.020 U	0.021 U	0.021 U	0.020 U	0.020 U	0.020 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
-	-	1.0 U	-	--	--	-	--
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
					150 U	150 U	2.0 U
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
10 J	20 U	20 U	20 U	20 U	20 U	20 U	20 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
40	**37**	**17**	**13**	**12**	**9.1**	**14**	**15**
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Parameters	Units	MW-3	MW-3	MW-3	MW-3	M
Sample Location:		MW-3	MW-3	MW-3	MW-3	M
Sample ID:		GW-021110-EAH-023	GW-101211-SAG-009	GW-042512-AWY-005	GW-102412-DJB-001	GW-0417
Sample Date:		2/11/2011	10/12/2011	4/25/2012	10/24/2012	4/1
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	90	260	200	74.4	5
1,1,2,2-Tetrachloroethane	ug/L	11	4.0 J	6.5	6.4 J	1
1,1,2-Trichloroethane	ug/L	5.4	6.6	6.9	5.6 J	7
1,1-Dichloroethane	ug/L	69	84	79	45.8	3
1,1-Dichloroethene	ug/L	15	21	18	8.5 J	6
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	0.64 J	1
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1(
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1(
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.(
1,2-Dichlorobenzene	ug/L	4.2 J	1.8 J	1.9 J	1.5 J	2
1,2-Dichloroethane	ug/L	6.0	2.7 J	3.6 J	3.1 J	3
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1(
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1(
1,3-Dichlorobenzene	ug/L	2.4 J	1.2 J	0.98 J	0.74 J	1
1,4-Dichlorobenzene	ug/L	3.0 J	1.3 J	1.3 J	0.92 J	1
1,4-Dioxane	ug/L		-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	50 U	10.0 U	1(
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	1(
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	1(
Acetone	ug/L	50 U	50 U	50 U	10.6 J	2:
Benzene	ug/L	11	4.6 J	5.6	3.7 J	5
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1(
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1(
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1(
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1(
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1(
Chlorobenzene	ug/L	10	3.7 J	4.6 J	3.6 J	6
Chloroethane	ug/L	5.6 J	2.8 J	4.1 J	4.6 J	4
Chloroform (Trichloromethane)	ug/L	7.0	5.0 J	6.2	3.3 J	2
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	1(
cis-1,2-Dichloroethene	ug/L	310	130	190	129	

Parameters	Units	Sample Location: MW-3 Sample ID: GW-021110-EAH-023 Sample Date: 2/11/2011	MW-3 GW-101211-SAG-009 10/12/2011	MW-3 GW-042512-AWY-005 4/25/2012	MW-3 GW-102412-DJB-001 10/24/2012	M GW-0417 4/1
Metals						
Arsenic	mg/L	-	0.0500 U	0.0500 U	0.01 U	0.0
Arsenic (dissolved)	mg/L	-	-	-	-	
Barium	mg/L	-	0.242	0.249	0.201	0
Barium (dissolved)	mg/L	-	-	-	-	
Cadmium	mg/L	-	0.0050 U	0.0050 U	0.005 U	0.0
Cadmium (dissolved)	mg/L	-	-	-	-	
Chromium	mg/L	-	0.0011 J	0.0012 J	0.01 U	0.0
Chromium Total (dissolved)	mg/L	-	-	-	-	
Copper	mg/L	-	0.0100 U	0.0100 U	0.0036 J	0.0
Copper (dissolved)	mg/L	-	-	-	-	
Iron	mg/L	17.3	12.9	9.11	7.37	1
Iron (dissolved)	mg/L	12.9	-	-	-	
Lead	mg/L	-	0.0100 U	0.0100 U	0.005 U	0.0
Lead (dissolved)	mg/L	-	-	-	-	
Manganese	mg/L	10.9 J	9.35	5.63	4.75	4
Manganese (dissolved)	mg/L	10.0 J	-	-	-	
Selenium	mg/L	-	0.0083 J	0.0200 U	0.01 U	0.
Selenium (dissolved)	mg/L	-	-	-	-	
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9 U	1.2 J	4
Ethene	ug/L	7 U	7 U	7 U	3.6 J	
Methane	ug/L	1400	99	85	90.5	3
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	42.9	27.8	45.2	44.5	4
Ammonia	mg/L	-	0.188 J	0.200 U	0.15 J	0.
Chloride	mg/L	58	44	38	-	

Parameters	Units	MW-4	MW-4	MW-4	MW-4	MI
Sample Location:		MW-4	MW-4	MW-4	MW-4	MI
Sample ID:		GW-020911-DJB-208	GW-101211-DJB-107	GW-042612-AWY-013	GW-102512-DJB-007	GW-04171
Sample Date:		2/9/2011	10/12/2011	4/26/2012	10/25/2012	4/17/
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.3 J	10.
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	4.0 J	10.
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
1,1-Dichloroethane	ug/L	4.9 J	4.0 J	1.7 J	23.9	2.
1,1-Dichloroethene	ug/L	3.1 J	3.0 J	1.5 J	12.0 J	1.
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.0
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.5 J	10.
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
1,4-Dioxane	ug/L	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	20.0 U	10.
2-Hexanone	ug/L	10 U	10 U	10 U	20.0 U	10.
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	20.0 U	10.
Acetone	ug/L	50 U	50 U	50 U	50.0 U	25.
Benzene	ug/L	5.0 U	0.41 J	5.0 U	5.4 J	0.2
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	20.0 U	10.
Chloroethane	ug/L	10 U	10 U	10 U	9.4 J	10.
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	3.8 J	10.
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	20.0 U	10.
cis-1,2-Dichloroethene	ug/L	33	30	8.8	208	1

Parameters	Units	MW-4 GW-020911-DJB-208 2/9/2011	MW-4 GW-101211-DJB-107 10/12/2011	MW-4 GW-042612-AWY-013 4/26/2012	MW-4 GW-102512-DJB-007 10/25/2012	MI GW-04171 4/17/
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.005 U	0.0
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	
Barium	mg/L	0.171	0.179	0.115	0.194	0.1
Barium (dissolved)	mg/L	0.148	-	-	-	
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.001 U	0.0
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	
Chromium	mg/L	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.0
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	
Copper	mg/L	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.0
Copper (dissolved)	mg/L	0.0100 U	-	-	-	
Iron	mg/L	0.157	0.100 U	0.0427 J	0.05 U	0.0
Iron (dissolved)	mg/L	0.100 U	-	-	-	
Lead	mg/L	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.0
Lead (dissolved)	mg/L	0.0100 U	-	-	-	
Manganese	mg/L	2.51	2.81	1.75	3.89	1.
Manganese (dissolved)	mg/L	2.26	-	-	-	
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.0
Selenium (dissolved)	mg/L	0.0200 U	-	-	-	
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.
Methane	ug/L	4 U	21	180	49.6	1
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	37.9	34.1	28.8	41.0	2
Ammonia	mg/L	-	0.056 J	0.200 U	0.10 U	0.1
Chloride	mg/L	8.5	8.7	5.9	-	5

Parameters	Units	MW-11	MW-11	MW-11	MW-11	MI
Sample Location:		MW-11	MW-11	MW-11	MW-11	MI
Sample ID:		GW-021011-DJB-210	GW-101211-SAG-006	GW-042512-AWY-007	GW-102912-DJB-009	GW-0417
Sample Date:		2/10/2011	10/12/2011	4/25/2012	10/29/2012	4/17
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,1,2,2-Tetrachloroethane	ug/L	4.4 J	3.4 J	1.8 J	1.2 J	1
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.0
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
1,4-Dioxane	ug/L	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10.0 U	10
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10
Acetone	ug/L	50 U	50 U	50 U	25.0 U	25
Benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10
cis-1,2-Dichloroethene	ug/L	14	9.6	8.6	7.4 J	7

Parameters	Units	MW-11 GW-021011-DJB-210 2/10/2011	MW-11 GW-101211-SAG-006 10/12/2011	MW-11 GW-042512-AWY-007 4/25/2012	MW-11 GW-102912-DJB-009 10/29/2012	MI GW-0417 4/17
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.01 U	0.(
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	
Barium	mg/L	0.119	0.110	0.107	0.0915 J	0.1
Barium (dissolved)	mg/L	0.112	-	-	-	
Cadmium	mg/L	0.0005 J	0.0002 J	0.0004 J	0.005 U	0.0
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	
Chromium	mg/L	0.0100 U	0.0100 U	0.0100 U	0.01 U	0.(
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	
Copper	mg/L	0.0100 U	0.0100 U	0.0100 U	0.025 U	0.0
Copper (dissolved)	mg/L	0.0100 U	-	-	-	
Iron	mg/L	0.117	0.100 U	0.0431 J	0.47	0.
Iron (dissolved)	mg/L	0.100 U	-	-	-	
Lead	mg/L	0.0100 U	0.0014 J	0.0100 U	0.005 U	0.0
Lead (dissolved)	mg/L	0.0100 U	-	-	-	
Manganese	mg/L	1.03	0.867	0.852	0.87	0.
Manganese (dissolved)	mg/L	1.02	-	-	-	
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.(
Selenium (dissolved)	mg/L	0.0200 U	-	-	-	
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.
Methane	ug/L	4 U	4 U	4 U	14.4	3
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	8.7 J	8.9 J	10.0 U	6.7	
Ammonia	mg/L	0.200 U	0.030 J	0.200 U	0.10 U	0.
Chloride	mg/L	16	12	12	-	

Parameters	Units	MW-12	MW-12	MW-12	MW-12	M
Sample Location:		MW-12	MW-12	MW-12	MW-12	M
Sample ID:		GW-021511-DJB-214	GW-021511-DJB-215	GW-101211-SAG-010	GW-042412-BCW-103	GW-1025
Sample Date:		2/15/2011	2/15/2011	10/12/2011	4/24/2012	10/2
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.5 J	1.5 J	25
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,1-Dichloroethane	ug/L	3.2 J	3.3 J	3.0 J	2.7 J	3
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	1.7 J	1.8 J	3
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	0.0
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
1,4-Dioxane	ug/L	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	16 J	50 U	4
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	25
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	25
Acetone	ug/L	50 U	50 U	50 U	50 U	62
Benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
Chloroethane	ug/L	10 U	10 U	1.7 J	10 U	25
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	25
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10 U	25
cis-1,2-Dichloroethene	ug/L	180	190	170	200	2

Parameters	Units	Sample Location: MW-12 Sample ID: GW-021511-DJB-214 Sample Date: 2/15/2011	MW-12 GW-021511-DJB-215 2/15/2011	MW-12 GW-101211-SAG-010 10/12/2011	MW-12 GW-042412-BCW-103 4/24/2012	M GW-1025 10/2
Metals						
Arsenic	mg/L	-	-	0.0500 U	0.0035 J	0.
Arsenic (dissolved)	mg/L	-	-	-	-	
Barium	mg/L	-	-	0.108	0.0955	0.0
Barium (dissolved)	mg/L	-	-	-	-	
Cadmium	mg/L	-	-	0.0050 U	0.0050 U	0.(
Cadmium (dissolved)	mg/L	-	-	-	-	
Chromium	mg/L	-	-	0.0026 J	0.0100 U	0.0
Chromium Total (dissolved)	mg/L	-	-	-	-	
Copper	mg/L	-	-	0.0011 J	0.0100 U	0.(
Copper (dissolved)	mg/L	-	-	-	-	
Iron	mg/L	0.156	0.100 U	0.276 U	0.235	0.
Iron (dissolved)	mg/L	0.100 U	0.100 U	-	-	
Lead	mg/L	-	-	0.0100 U	0.0100 U	0.(
Lead (dissolved)	mg/L	-	-	-	-	
Manganese	mg/L	0.184	0.186	0.134	0.0732	0.(
Manganese (dissolved)	mg/L	0.178	0.180	-	-	
Selenium	mg/L	-	-	0.0200 U	0.0200 U	0.
Selenium (dissolved)	mg/L	-	-	-	-	
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9 U	9 U	6
Ethene	ug/L	7 U	7 U	7 U	7 U	6
Methane	ug/L	4 U	4 U	4 U	4 U	6
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	15.5	14.5	11.6	11.5	
Ammonia	mg/L	-	-	0.049 J	0.200 U	0.
Chloride	mg/L	10	10	8.7	8.6	

Sample Location:		MW-12	MW-14	MW-14	MW-14
Sample ID:		GW-013926-041316-SAG-107	GW-020911-SAG-119	GW-101311-SAG-012	GW-042512-BCW-104
Sample Date:		4/13/2016	2/9/2011	10/13/2011	4/25/2012
Parameters	**Units**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	2.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	ug/L	150 U	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	50 U	50 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	50 U	50 U	50 U
Benzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	1.0 U	10 U	10 U	10 U
Chloroform (Trichloromethane)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	9.4	5.0 U	5.0 U	5.0 U

Parameters	Units	MW-12 GW-013926-041316-SAG-107 4/13/2016	MW-14 GW-020911-SAG-119 2/9/2011	MW-14 GW-101311-SAG-012 10/13/2011	MW-14 GW-042512-BCW-104 4/25/2012
Metals					
Arsenic	mg/L	0.000638 J	0.0500 U	0.0500 U	0.0500 U
Arsenic (dissolved)	mg/L	-	0.0500 U	-	-
Barium	mg/L	0.171	0.0443	0.0487	0.0778
Barium (dissolved)	mg/L	-	0.0383	-	-
Cadmium	mg/L	0.000254 J	0.0050 U	0.0050 U	0.0050 U
Cadmium (dissolved)	mg/L	-	0.0050 U	-	-
Chromium	mg/L	0.00529	0.0100 U	0.0015 J	0.0061 J
Chromium Total (dissolved)	mg/L	-	0.0100 U	-	-
Copper	mg/L	0.002 U	0.0009 J	0.0100 U	0.0035 J
Copper (dissolved)	mg/L	-	0.0100 U	-	-
Iron	mg/L	0.0518 J	0.332	1.21	5.33
Iron (dissolved)	mg/L	--	0.100 U	-	-
Lead	mg/L	0.000278 J	0.0100 U	0.0008 J	0.0032 J
Lead (dissolved)	mg/L	-	0.0100 U	-	-
Manganese	mg/L	--	0.0039 J	0.0090 J	0.0320
Manganese (dissolved)	mg/L	-	0.0063 J	-	-
Selenium	mg/L	0.00122 J	0.0200 U	0.0200 U	0.0200 U
Selenium (dissolved)	mg/L		0.0200 U	-	-
Dissolved Gas					
Ethane	ug/L	9.0 U	9 U	9 U	9 U
Ethene	ug/L	7.0 U	7 U	7 U	7 U
Methane	ug/L	1.8 J	7	4 U	4 U
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	7.00	11.9	10.0 U	12.3
Ammonia	mg/L	0.020 U	-	0.020 J	0.200 U
Chloride	mg/L	14	5.8	2.3	2.1

Parameters	Units	MW-14	MW-14	MW-14	GW-013
Sample Location:		MW-14	MW-14	MW-14	
Sample ID:		GW-013926-101514-DJB-104	GW-013926-101514-DJB-105	GW-013926-031715-DJB-101	
Sample Date:		10/15/2014	10/15/2014	3/17/2015	
			Duplicate		
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.021 U	0.021 U	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	
Acetone	ug/L	20 U	20 U	20 U	
Benzene	ug/L	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	

Parameters	Units	Sample Location: MW-14 Sample ID: GW-013926-101514-DJB-104 Sample Date: 10/15/2014	MW-14 GW-013926-101514-DJB-105 10/15/2014 Duplicate	MW-14 GW-013926-031715-DJB-101 3/17/2015	GW-013
Metals					
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	
Arsenic (dissolved)	mg/L	-	-	-	
Barium	mg/L	0.0434	0.0401	0.0437	
Barium (dissolved)	mg/L	-	-	-	
Cadmium	mg/L	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	-	-	-	
Chromium	mg/L	0.00115 J	0.000706 J	0.000522 J	
Chromium Total (dissolved)	mg/L	-	-	-	
Copper	mg/L	0.005 U	0.005 U	0.0032	
Copper (dissolved)	mg/L	-	-	-	
Iron	mg/L	0.705 J	0.267 J	0.2	
Iron (dissolved)	mg/L	-	-	--	
Lead	mg/L	0.001 U	0.001 U	0.000313 J	
Lead (dissolved)	mg/L	-	-	-	
Manganese	mg/L	0.00598	0.005 U	0.005 U	
Manganese (dissolved)	mg/L	-	-	--	
Selenium	mg/L	0.000779 J	0.000742 J	0.000786 J	
Selenium (dissolved)	mg/L				
Dissolved Gas					
Ethane	ug/L	9 U	9 U	9 U	
Ethene	ug/L	7 U	7 U	7 U	
Methane	ug/L	4 U	4 U	4 U	
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	18.8	19.6	17.0	
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	
Chloride	mg/L	2.1	2.1	1.8	

Parameters	Units	MW-35	MW-35	MW-35	GW-0
Sample Location:		MW-35	MW-35	MW-35	
Sample ID:		GW-013926-102513-DJB-108	GW-013926-050114-DWH-109	GW-013926-101514-SAG-007	
Sample Date:		10/25/2013	5/1/2014	10/15/2014	
		Duplicate			
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	1.4	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	45	14	20	
1,1,2-Trichloroethane	ug/L	1.6	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	13	3.2	3.5	
1,1-Dichloroethene	ug/L	5.9	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.021 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	1.4	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	3.1	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	4.1	1.8	1.0 U	
1,4-Dioxane	ug/L	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	
Acetone	ug/L	20 U	20 U	20 U	
Benzene	ug/L	22	4.8	1.1	
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	1.7	1.0 U	1.0 U	
Chloroethane	ug/L	5.8	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	3.0	1.3	1.1	
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	86	28	44	

Parameters	Units	Sample Location: MW-35 Sample ID: GW-013926-102513-DJB-108 Sample Date: 10/25/2013 Duplicate	MW-35 GW-013926-050114-DWH-109 5/1/2014	MW-35 GW-013926-101514-SAG-007 10/15/2014	GW-0
Metals					
Arsenic	mg/L	0.000587 J	0.005 U	0.005 U	
Arsenic (dissolved)	mg/L	-	-	-	
Barium	mg/L	0.33	0.295	0.284	
Barium (dissolved)	mg/L	-	-	-	
Cadmium	mg/L	0.000422 J	0.0007 U	0.000982	
Cadmium (dissolved)	mg/L	-	-	-	
Chromium	mg/L	0.005 U	0.005 U	0.000812 J	
Chromium Total (dissolved)	mg/L	-	-	-	
Copper	mg/L	0.00134 J	0.002 U	0.00285	
Copper (dissolved)	mg/L	-	-	-	
Iron	mg/L	0.0886 J	0.1 U	0.234	
Iron (dissolved)	mg/L	-	-	-	
Lead	mg/L	0.000329 J	0.001 U	0.000515 J	
Lead (dissolved)	mg/L	-	-	-	
Manganese	mg/L	0.463	0.501	0.412	
Manganese (dissolved)	mg/L	-	-	-	
Selenium	mg/L	0.005 U	0.005 U	0.00036 J	
Selenium (dissolved)	mg/L	-	-		
Dissolved Gas					
Ethane	ug/L	4 J	9 U	9 U	
Ethene	ug/L	7 U	7 U	7 U	
Methane	ug/L	120	160	29	
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	10.2	10.0 U	14.5	
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	
Chloride	mg/L	39	32	36	

Parameters	Units	MW-42	MW-42	MW-42	MW-42
Sample Location:		MW-42	MW-42	MW-42	MW-42
Sample ID:		GW-102512-DJB-005	GW-042213-DJB-206	GW-013926-102413-SAG-010	GW-013926-042514-DJB-0
Sample Date:		10/25/2012	4/22/2013	10/24/2013	4/25/2014
		Duplicate			
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	6.6 J	11.1	7.4	5.4
1,1,2,2-Tetrachloroethane	ug/L	29.0 J	32.6	35	26
1,1,2-Trichloroethane	ug/L	2.7 J	3.5 J	2.7	2.4
1,1-Dichloroethane	ug/L	66.9	94.0	78	56
1,1-Dichloroethene	ug/L	66.6	147	82	65
1,2,4-Trichlorobenzene	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.021 U	0.020 U
1,2-Dichlorobenzene	ug/L	50.0 U	0.65 J	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.5 J	6.0 J	5.1	3.9
1,2-Dichloropropane	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	50.0 U	1.0 J	0.69 J	1.0 U
1,4-Dioxane	ug/L	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	60.9	10.0 U	10 U	10 U
2-Hexanone	ug/L	50.0 U	10.0 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	50.0 U	10.0 U	10 U	10 U
Acetone	ug/L	125 U	25.0 U	20 U	20 U
Benzene	ug/L	13.4 J	14.8	2.1	5.7
Bromodichloromethane	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
Bromoform	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	50.0 U	10.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	50.0 U	2.0 J	0.91 J	2.0 U
Chlorobenzene	ug/L	50.0 U	0.39 J	1.0 U	1.0 U
Chloroethane	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	37.3 J	61.1	36	34
Chloromethane (Methyl chloride)	ug/L	50.0 U	10.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	696	819	550	540

Parameters	Units	Sample Location: MW-42 Sample ID: GW-102512-DJB-005 Sample Date: 10/25/2012 Duplicate	MW-42 GW-042213-DJB-206 4/22/2013	MW-42 GW-013926-102413-SAG-010 10/24/2013	MW-42 GW-013926-042514-DJB-0 4/25/2014
Metals					
Arsenic	mg/L	0.01 U	0.01 U	0.000276 J	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	-
Barium	mg/L	0.301	0.237	0.196	0.492
Barium (dissolved)	mg/L	-	-	-	-
Cadmium	mg/L	0.005 U	0.005 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	-	-	-	-
Chromium	mg/L	0.0072 J	0.0052 J	0.00348 J	0.02 U
Chromium Total (dissolved)	mg/L	-	-	-	-
Copper	mg/L	0.025 U	0.025 U	0.00157 J	0.00397
Copper (dissolved)	mg/L	-	-	-	-
Iron	mg/L	4.8	3.04	2.04	12.5
Iron (dissolved)	mg/L	-	-	-	-
Lead	mg/L	0.005 U	0.005 U	0.000832 J	0.00281
Lead (dissolved)	mg/L	-	-	-	-
Manganese	mg/L	0.139	0.075	0.0516	0.18
Manganese (dissolved)	mg/L	-	-	-	-
Selenium	mg/L	0.01 U	0.01 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	-		-	-
Dissolved Gas					
Ethane	ug/L	6.2 U	6.2 U	9 U	9 U
Ethene	ug/L	6.2 U	6.2 U	7 U	7 U
Methane	ug/L	40.0	149	8	34
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	48.7	27.9	55.6	51.5
Ammonia	mg/L	0.10 U	0.10 U	0.020 U	0.020 U
Chloride	mg/L	-	3.2	4.9	9.9

Parameters	Units	TW-2 GW-042512-BCW-105 4/25/2012	TW-2 GW-102512-BCW-103 10/25/2012	TW-2 GW-042313-DJB-207 4/23/2013	TW-2 GW-013926-102413-SAG-008 10/24/2013
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	10.0 U	10.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	10.0 U	10.0 U	10 U
2-Hexanone	ug/L	10 U	10.0 U	10.0 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10.0 U	10.0 U	10 U
Acetone	ug/L	22 J	25.0 U	25.0 U	20 U
Benzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Bromoform	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	10.0 U	10.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	10.0 U	10.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Chloroethane	ug/L	10 U	10.0 U	10.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10.0 U	10.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U

Parameters	Units	Sample Location: TW-2 Sample ID: GW-042512-BCW-105 Sample Date: 4/25/2012	TW-2 GW-102512-BCW-103 10/25/2012	TW-2 GW-042313-DJB-207 4/23/2013	TW-2 GW-013926-102413-SAG-008 10/24/2013
Metals					
Arsenic	mg/L	0.0500 U	0.01 U	0.01 U	0.00021 J
Arsenic (dissolved)	mg/L	-	-	-	-
Barium	mg/L	0.342	0.237	0.119 J	0.0411
Barium (dissolved)	mg/L	-	-	-	-
Cadmium	mg/L	0.0050 U	0.005 U	0.005 U	0.000241 J
Cadmium (dissolved)	mg/L	-	-	-	-
Chromium	mg/L	0.0074 J	0.0193	0.0084 J	0.000797 J
Chromium Total (dissolved)	mg/L	-	-	-	-
Copper	mg/L	0.0093 J	0.0132 J	0.0221 J	0.00179 J
Copper (dissolved)	mg/L	-	-	-	-
Iron	mg/L	2.78	11.8	4	0.311
Iron (dissolved)	mg/L	-	-	-	-
Lead	mg/L	0.0043 J	0.005 U	0.0063	0.000758 J
Lead (dissolved)	mg/L	-	-	-	-
Manganese	mg/L	9.35	0.807	1.08	0.706
Manganese (dissolved)	mg/L	-	-	-	-
Selenium	mg/L	0.0109 J	0.01 U	0.01 U	0.005 U
Selenium (dissolved)	mg/L	-	-		-
Dissolved Gas					
Ethane	ug/L	9 U	6.2 U	6.2 U	9 U
Ethene	ug/L	7 U	6.2 U	6.2 U	7 U
Methane	ug/L	18	49.8	33.0	3 J
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	36.2	30.0	30.5	33.2
Ammonia	mg/L	0.200 U	0.10 U	0.10 U	0.020 U
Chloride	mg/L	1.8	-	1.6	1.6

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	Sample Location:	MW-7A	MW-7A	MW-7A	MW-7A	M
	Sample ID:	GW-020211-EAH-001	GW-101111-SAG-005	GW-042412-AWY-004	GW-103012-DJB-011	GW-0422
	Sample Date:	2/2/2011	10/11/2011	4/24/2012	10/30/2012	4/22
Parameters	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	0.83 J	1.1 J	7
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.C
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	0.48 J	0.27 J	0.
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
1,4-Dioxane	ug/L	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	7.2 J	1C
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	1C
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	1C
Acetone	ug/L	17 J	11 J	5.8 J	109	25
Benzene	ug/L	5.0 U	5.0 U	5.0 U	0.38 J	2
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	1C
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	1C
cis-1,2-Dichloroethene	ug/L	16	15	30	37.9	1
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1C

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

	Sample Location:	MW-7A	MW-7A	MW-7A	MW-7A	MI
	Sample ID:	GW-020211-EAH-001	GW-101111-SAG-005	GW-042412-AWY-004	GW-103012-DJB-011	GW-0422
	Sample Date:	2/2/2011	10/11/2011	4/24/2012	10/30/2012	4/22
Parameters	***Units***					
Metals						
Arsenic	mg/L	-	0.0500 U	0.0070 J	0.0049 J	0.(
Arsenic (dissolved)	mg/L	-	-		-	
Barium	mg/L	-	0.0154 J	0.0114 J	0.0648 J	0.0
Barium (dissolved)	mg/L	-	-		-	
Cadmium	mg/L	-	0.0050 U	0.0050 U	0.005 U	0.0
Cadmium (dissolved)	mg/L	-	-		-	
Chromium	mg/L	-	0.0011 J	0.0100 U	0.0042 J	0.(
Chromium Total (dissolved)	mg/L	-	-		-	
Copper	mg/L	-	0.0045 J	0.0100 U	0.0265	0.0
Copper (dissolved)	mg/L	-	-		-	
Iron	mg/L	-	0.100 U	0.0631 J	2.04	2
Iron (dissolved)	mg/L	-	-	-	-	
Lead	mg/L	-	0.0100 U	0.0024 J	0.0042 J	0.0
Lead (dissolved)	mg/L	-	-		-	
Manganese	mg/L	-	0.0455	0.0239	0.496	0.0
Manganese (dissolved)	mg/L	-	-	-	-	
Selenium	mg/L	-	0.0200 U	0.0200 U	0.01 U	0.(
Selenium (dissolved)	mg/L	-	-		-	
Dissolved Gas						
Ethane	ug/L	-	9 U	9 U	6.2 U	6.
Ethene	ug/L	-	7 U	7 U	1.6 J	0.
Methane	ug/L	-	33	33	37.6	1
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	-	365	275	271	9(
Ammonia	mg/L	-	0.067 J	0.200 U	0.10 U	0.
Chloride	mg/L	-	15	12	-	(
Ferrous iron	mg/L	-	-		9.0	
Nitrate (as N)	mg/L	-	2.5 U	1.2 U	0.25 U	0.
Orthophosphate	mg/L	-	0.0151 U	0.0172	0.28	0.

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

Sample Location:		MW-7A	MW-7A	MW-7A	M
Sample ID:		GW-013926-031815-DJB-108	GW-013926-102815-SAG-011	GW-013926-041316-SAG-108	GW-020
Sample Date:		3/18/2015	10/28/2015	4/13/2016	2/
Parameters	**Units**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	2.3	1.0 U	1.0	
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	140 J	150 U	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	
Acetone	ug/L	31	100	24	
Benzene	ug/L	0.62 J	1.0 U	1.0 U	
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	2.5	1.0 U	6.2	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

Sample Location:		MW-7A	MW-7A	MW-7A	M
Sample ID:		GW-013926-031815-DJB-108	GW-013926-102815-SAG-011	GW-013926-041316-SAG-108	GW-020
Sample Date:		3/18/2015	10/28/2015	4/13/2016	2/
Parameters	***Units***				
Metals					
Arsenic	mg/L	0.00114 J	0.005 U	0.000882 J	
Arsenic (dissolved)	mg/L	-	--	-	
Barium	mg/L	0.0649	0.0739	0.0664	1
Barium (dissolved)	mg/L	-	--	-	1
Cadmium	mg/L	0.0007 U	0.000178 J	0.000474 J	
Cadmium (dissolved)	mg/L	-	--	-	
Chromium	mg/L	0.000252 J	0.000445 J	0.005 U	
Chromium Total (dissolved)	mg/L	-	--	-	
Copper	mg/L	0.00181 J	0.00247	0.000683 J	
Copper (dissolved)	mg/L	-	--	-	
Iron	mg/L	0.0857 J	0.233	0.231	
Iron (dissolved)	mg/L	--	--	--	1
Lead	mg/L	0.001 U	0.000678 J	0.000423 J	
Lead (dissolved)	mg/L	-	--	-	
Manganese	mg/L	0.0834	0.11 J	--	
Manganese (dissolved)	mg/L	--	--	-	
Selenium	mg/L	0.005 U	0.005 U	0.005 U	
Selenium (dissolved)	mg/L		--		
Dissolved Gas					
Ethane	ug/L	9 U	9.0 U	9.0 U	
Ethene	ug/L	10	5.5 J	5.4 J	
Methane	ug/L	740	1700	1800	
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	150	152	138	7
Ammonia	mg/L	1.12	2.60	1.57	
Chloride	mg/L	7.8	7.8	7.7	
Ferrous iron	mg/L	-	--	-	1
Nitrate (as N)	mg/L	0.25 U	0.25 U	0.031 J	
Orthophosphate	mg/L	0.175	0.320	0.159	

Attachmen

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

Sample Location:		MW-10A	MW-10A	MW-10A	GW-013
Sample ID:		GW-013926-102313-SAG-003	GW-013926-050114-DJB-012	GW-013926-101614-DJB-109	
Sample Date:		10/23/2013	5/1/2014	10/16/2014	
Parameters	***Units***				
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	0.39 J	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.021 U	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	
Acetone	ug/L	20 U	20 U	20 U	
Benzene	ug/L	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	4.6	3.6	5.6	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

	Sample Location:	MW-10A	MW-10A	MW-10A	
	Sample ID:	GW-013926-102313-SAG-003	GW-013926-050114-DJB-012	GW-013926-101614-DJB-109	GW-013
	Sample Date:	10/23/2013	5/1/2014	10/16/2014	
Parameters	***Units***				
Metals					
Arsenic	mg/L	0.000897 J	0.005 U	0.00107 J	
Arsenic (dissolved)	mg/L	-	-	-	
Barium	mg/L	0.0115	0.0176	0.0143	
Barium (dissolved)	mg/L	-	-	-	
Cadmium	mg/L	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	-	-	-	
Chromium	mg/L	0.005 U	0.005 U	0.005 U	
Chromium Total (dissolved)	mg/L	-	-	-	
Copper	mg/L	0.002 U	0.002 U	0.0023	
Copper (dissolved)	mg/L	-	-	-	
Iron	mg/L	0.0089 J	0.158	0.0255 J	
Iron (dissolved)	mg/L	-	-	-	
Lead	mg/L	0.000231 J	0.0106	0.00339	
Lead (dissolved)	mg/L	-	-	-	
Manganese	mg/L	0.00427 J	0.145	0.0422	
Manganese (dissolved)	mg/L	-	-	-	
Selenium	mg/L	0.005 U	0.005 U	0.005 U	
Selenium (dissolved)	mg/L	-	-		
Dissolved Gas					
Ethane	ug/L	9 U	9 U	9 U	
Ethene	ug/L	7 U	7 U	7 U	
Methane	ug/L	4 U	4 U	4 U	
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	72.6	70.6	74.8	
Ammonia	mg/L	0.020 U	0.020 U	0.019 J	
Chloride	mg/L	1.2	1.2	1.3	
Ferrous iron	mg/L	-	-	-	
Nitrate (as N)	mg/L	0.21 J	0.25 U	0.25 U	
Orthophosphate	mg/L	0.0295	0.0222	0.0410	

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

Sample Location:		MW-13	MW-13	MW-13	MW-13	MW-13
Sample ID:		GW-020911-SAG-120	GW-101211-DJB-105	GW-101211-DJB-104	GW-042612-BLW-106	GW-102412-DJB
Sample Date:		2/9/2011	10/12/2011	10/12/2011	4/26/2012	10/24/2012
			Duplicate			
Parameters	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	1.4 J	1.7 J	1.6 J	0.70 J	1.4 J
1,1,2,2-Tetrachloroethane	ug/L	12	10	11	7.1	8.3 J
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	0.54 J
1,1-Dichloroethane	ug/L	15	30	30	11	22.0
1,1-Dichloroethene	ug/L	13	29	28	5.3	17.1
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	0.32 J
1,2-Dichloroethane	ug/L	0.88 J	1.9 J	1.9 J	0.63 J	1.4 J
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	1.0 J	0.99 J	5.0 U	0.51 J
1,4-Dioxane	ug/L	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	50 U	10.0 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10.0 U
Acetone	ug/L	50 U	50 U	50 U	17 J	25.0 U
Benzene	ug/L	1.6 J	6.8	7.0	1.1 J	2.0 J
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	0.55 J	5.0 U	0.37 J
Chloroethane	ug/L	10 U	10 U	10 U	1.3 J	2.2 J
Chloroform (Trichloromethane)	ug/L	5.4	8.1	7.9	3.7 J	6.2 J
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10 U	10.0 U
cis-1,2-Dichloroethene	ug/L	270	320	350	170	275
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U

Attachmen

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
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Parameters	Units	MW-13 GW-020911-SAG-120 2/9/2011	MW-13 GW-101211-DJB-105 10/12/2011 Duplicate	MW-13 GW-101211-DJB-104 10/12/2011	MW-13 GW-042612-BLW-106 4/26/2012	MW-13 GW-102412-DJB 10/24/2012
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.01 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-		-
Barium	mg/L	0.102	0.0979	0.104	0.0885	0.088 J
Barium (dissolved)	mg/L	0.0903	-	-		-
Cadmium	mg/L	0.0050 U	0.0004 J	0.0050 U	0.0050 U	0.005 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-		-
Chromium	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.01 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-		-
Copper	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.025 U
Copper (dissolved)	mg/L	0.0100 U	-	-		-
Iron	mg/L	0.0272 J	0.100 U	0.174 U	0.0259 J	0.1 U
Iron (dissolved)	mg/L	0.100 U	-	-	-	-
Lead	mg/L	0.0100 U	0.0026 J	0.0074 J	0.0100 U	0.005 U
Lead (dissolved)	mg/L	0.0100 U	-	-		-
Manganese	mg/L	0.0798	0.0601	0.0679	0.0717	0.0477
Manganese (dissolved)	mg/L	0.0635	-	-	-	-
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.01 U
Selenium (dissolved)	mg/L	0.0200 U	-	-		-
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9 U	9 U	6.2 U
Ethene	ug/L	7 U	7 U	7 U	7 U	6.2 U
Methane	ug/L	39	200	210	13	55.7
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	30.8	43.3	45.1	24.9	34.3
Ammonia	mg/L	-	0.029 J	0.036 J	0.200 U	0.20 U
Chloride	mg/L	21	18	18	15	-
Ferrous iron	mg/L	0.100 UJ	-	-		16
Nitrate (as N)	mg/L	0.86	0.42	0.41	0.96	0.85
Orthophosphate	mg/L	-	0.212	0.214	0.130	0.39

Attachmen

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

Sample Location:		MW-13	MW-13	MW-41	MW-41	GW-
Sample ID:		GW-013926-102815-DJB-105	GW-013926-041216-SAG-103	GW-021111-DJB-212	GW-101211-DJB-103	
Sample Date:		10/28/2015	4/12/2016	2/11/2011	10/12/2011	
Parameters	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	3.5 J	5.0 U	
1,1,2,2-Tetrachloroethane	ug/L	7.0	4.2	5.2	3.1 J	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
1,1-Dichloroethane	ug/L	10	2.3	1.8 J	5.0 U	
1,1-Dichloroethene	ug/L	8.0	1.8 J	6.1	5.0 U	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	5.0 U	5.0 U	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	5.9	2.6 J	
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
1,4-Dioxane	ug/L	120 J	150 U	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	50 U	50 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	
Acetone	ug/L	20 U	20 U	50 U	50 U	
Benzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
Bromodichloromethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
Bromoform	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	
Chlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	
Chloroethane	ug/L	1.0 U	1.0 U	10 U	10 U	
Chloroform (Trichloromethane)	ug/L	2.9	1.4	5.9	1.4 J	
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	10 U	10 U	
cis-1,2-Dichloroethene	ug/L	180	69	37	9.4	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	

Attachmen

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
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Sample Location:		MW-13	MW-13	MW-41	MW-41	GW-
Sample ID:		GW-013926-102815-DJB-105	GW-013926-041216-SAG-103	GW-021111-DJB-212	GW-101211-DJB-103	
Sample Date:		10/28/2015	4/12/2016	2/11/2011	10/12/2011	
Parameters	***Units***					
Metals						
Arsenic	mg/L	0.0011 J	0.000371 J	0.0500 U	0.050[illegible] U	
Arsenic (dissolved)	mg/L	--	-	0.0500 U	-	
Barium	mg/L	0.084	0.0615	0.243	0.363	
Barium (dissolved)	mg/L	--	-	0.233	-	
Cadmium	mg/L	0.0007 U	0.0007 U	0.0050 U	0.0050 U	
Cadmium (dissolved)	mg/L	--	-	0.0050 U	-	
Chromium	mg/L	0.000423 J	0.005 U	0.0011 J	0.0165	
Chromium Total (dissolved)	mg/L	--	-	0.0100 U	-	
Copper	mg/L	0.000907 J	0.002 U	0.0014 J	0.0169	
Copper (dissolved)	mg/L	--	-	0.0100 U	-	
Iron	mg/L	0.1 U	0.1 U	0.538	11.4	
Iron (dissolved)	mg/L	--	--	0.100 U	-	
Lead	mg/L	0.000715 J	0.000207 J	0.0100 U	0.0034 J	
Lead (dissolved)	mg/L	--	-	0.0100 U	-	
Manganese	mg/L	0.0331 J	--	0.147	0.191	
Manganese (dissolved)	mg/L	--	-	0.141	-	
Selenium	mg/L	0.00181 J	0.000981 J	0.0200 U	0.0200 U	
Selenium (dissolved)	mg/L	--		0.0200 U	-	
Dissolved Gas						
Ethane	ug/L	9.0 U	9.0 U	9 U	9 U	
Ethene	ug/L	7.0 U	7.0 U	7 U	7 U	
Methane	ug/L	27	1.3 J	4 U	4 U	
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	30.0	25.0	10.0 U	10.0 U	
Ammonia	mg/L	0.020 U	0.020 U	-	0.025 J	
Chloride	mg/L	13	9.6 J	22	15	
Ferrous iron	mg/L	--	-	0.100 U	-	
Nitrate (as N)	mg/L	0.57	0.89	3.2	2.6	
Orthophosphate	mg/L	0.172	0.0815	-	0.0976	

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Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
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		allow Bedrock Unit			
	Sample Location:	*MW-41*	*MW-41*	*MW-41*	
	Sample ID:	*GW-013926-042314-DJB-004*	*GW-013926-101414-DJB-101*	*GW-013926-031715-DJB-103*	*GW-*
	Sample Date:	*4/23/2014*	*10/14/2014*	*3/17/2015*	
Parameters	***Units***				
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	1.3	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	2.6	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	4.3	2.0 U	1.9 J	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.021 U	0.020 U	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	4.9	2.3	1.4	
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	
Acetone	ug/L	20 U	20 U	20 U	
Benzene	ug/L	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	3.6	2.1	1.9	
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	27	8.7	3.7	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	

Historical Analytical R
Monitored Natural Attenuation in Sha
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		allow Bedrock Unit			
	Sample Location:	*MW-41*	*MW-41*	*MW-41*	*GW-*
	Sample ID:	*GW-013926-042314-DJB-004*	*GW-013926-101414-DJB-101*	*GW-013926-031715-DJB-103*	
	Sample Date:	*4/23/2014*	*10/14/2014*	*3/17/2015*	
Parameters	***Units***				
Metals					
Arsenic	mg/L	0.005 U	0.005 U	0.000387 J	
Arsenic (dissolved)	mg/L	-	-	-	
Barium	mg/L	0.22	0.198	0.189	
Barium (dissolved)	mg/L	-	-	-	
Cadmium	mg/L	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	-	-	-	
Chromium	mg/L	0.005 U	0.000629 J	0.000565 J	
Chromium Total (dissolved)	mg/L	-	-	-	
Copper	mg/L	0.002 U	0.0022	0.00105 J	
Copper (dissolved)	mg/L	-	-	-	
Iron	mg/L	0.184	0.182	0.0497 J	
Iron (dissolved)	mg/L	-	-	--	
Lead	mg/L	0.001 U	0.00011 J	0.001 U	
Lead (dissolved)	mg/L	-	-	-	
Manganese	mg/L	0.046	0.0338	0.0284	
Manganese (dissolved)	mg/L	-	-	--	
Selenium	mg/L	0.005 U	0.005 U	0.005 U	
Selenium (dissolved)	mg/L	-			
Dissolved Gas					
Ethane	ug/L	9 U	9 U	9 U	
Ethene	ug/L	7 U	7 U	7 U	
Methane	ug/L	4 U	4 U	4 U	
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	10.0 U	11.8	7.00	
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	
Chloride	mg/L	16	14	12	
Ferrous iron	mg/L	-	-	-	
Nitrate (as N)	mg/L	2.3	1.4	1.5	
Orthophosphate	mg/L	0.186	0.177	0.209	

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Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

		Bed Rock Unit			
	Sample Location:	*MW-4A*	*MW-4A*	*MW-4A*	*MW-4A*
	Sample ID:	*GW-042612-AWY-012*	*GW-102512-DJB-006*	*GW-041713-DJB-202*	*GW-013926-102313-SAG-001*
	Sample Date:	*4/26/2012*	*10/25/2012*	*4/17/2013*	*10/23/2013*
Parameters	*Units*				
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,1-Dichloroethane	ug/L	0.55 J	0.97 J	0.72 J	1.1
1,1-Dichloroethene	ug/L	5.0 U	10.0 U	10.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.6 J	10.0 U	10.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	10.0 U	10.0 U	10 U
2-Hexanone	ug/L	10 U	10.0 U	10.0 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10.0 U	10.0 U	10 U
Acetone	ug/L	50 U	25.0 U	25.0 U	20 U
Benzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Bromoform	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	10.0 U	10.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	10.0 U	10.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Chloroethane	ug/L	10 U	10.0 U	10.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	10.0 U	10.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10.0 U	10.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.2	9.8 J	8.8 J	11
cis-1,3-Dichloropropene	ug/L	5.0 U	10.0 U	10.0 U	1.0 U

Historical Analytical R
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		Bed Rock Unit			
	Sample Location:	MW-4A	MW-4A	MW-4A	MW-4A
	Sample ID:	GW-042612-AWY-012	GW-102512-DJB-006	GW-041713-DJB-202	GW-013926-102313-SAG-001
	Sample Date:	4/26/2012	10/25/2012	4/17/2013	10/23/2013
Parameters	***Units***				
Metals					
Arsenic	mg/L	0.0500 U	0.01 U	0.01 U	0.005 U
Arsenic (dissolved)	mg/L		-	-	-
Barium	mg/L	0.0212	0.0182 J	0.0237 J	0.0151
Barium (dissolved)	mg/L		-	-	-
Cadmium	mg/L	0.0003 J	0.005 U	0.005 U	0.0007 U
Cadmium (dissolved)	mg/L		-	-	-
Chromium	mg/L	0.0100 U	0.01 U	0.01 U	0.005 U
Chromium Total (dissolved)	mg/L		-	-	-
Copper	mg/L	0.0010 J	0.025 U	0.025 U	0.000526 J
Copper (dissolved)	mg/L		-	-	-
Iron	mg/L	0.109	0.1 U	0.292	0.0115 J
Iron (dissolved)	mg/L	-	-	-	-
Lead	mg/L	0.0133	0.0043 J	0.0125	0.00163
Lead (dissolved)	mg/L		-	-	-
Manganese	mg/L	0.0031 J	0.0039 J	0.0035 J	0.000799 J
Manganese (dissolved)	mg/L	-	-	-	-
Selenium	mg/L	0.0200 U	0.01 U	0.01 U	0.005 U
Selenium (dissolved)	mg/L		-		-
Dissolved Gas					
Ethane	ug/L	9 U	6.2 U	6.2 U	9 U
Ethene	ug/L	7 U	6.2 U	6.2 U	7 U
Methane	ug/L	52	65.6	6.6 U	7
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	35.6	31.2	32.2	36.3
Ammonia	mg/L	0.200 U	0.10 U	0.10 U	0.020 U
Chloride	mg/L	1.3	-	1.3	1.1
Ferrous iron	mg/L		1.2	-	-
Nitrate (as N)	mg/L	0.072 J	0.25 U	0.041 J	0.19 J
Orthophosphate	mg/L	0.0376	0.25 U	0.25 U	0.0334

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Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

		Bedrock Unit			
	Sample Location:	*MW-4A*	*MW-11A*	*MW-11A*	*MW-11A*
	Sample ID:	*GW-013926-041416-SAG-109*	*GW-021011-EAH-021*	*GW-101211-SAG-007*	*GW-042512-AWY-006*
	Sample Date:	*4/14/2016*	*2/10/2011*	*10/12/2011*	*4/25/2012*
Parameters	***Units***				
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	33	34	31
1,1,2-Trichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	1.3	5.3	4.0 J	4.7 J
1,1-Dichloroethene	ug/L	2.0 U	2.4 J	1.4 J	2.1 J
1,2,4-Trichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.5 J	5.0 U	0.94 J
1,4-Dioxane	ug/L	150 U	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	50 U	12 J	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	50 U	50 U	50 U
Benzene	ug/L	1.0 U	0.65 J	0.67 J	0.60 J
Bromodichloromethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	1.0 U	0.71 J	5.0 U	5.0 U
Chloroethane	ug/L	1.0 U	2.3 J	2.6 J	10 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.1 J	5.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	11	160	120	200
cis-1,3-Dichloropropene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U

Historical Analytical R
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		Bedrock Unit			
	Sample Location:	*MW-4A*	*MW-11A*	*MW-11A*	*MW-11A*
	Sample ID:	*GW-013926-041416-SAG-109*	*GW-021011-EAH-021*	*GW-101211-SAG-007*	*GW-042512-AWY-006*
	Sample Date:	*4/14/2016*	*2/10/2011*	*10/12/2011*	*4/25/2012*
Parameters	***Units***				
Metals					
Arsenic	mg/L	0.00029 J	0.0500 U	0.0500 U	0.0500 U
Arsenic (dissolved)	mg/L	-	0.0500 U	-	
Barium	mg/L	0.0165	0.184	0.199	0.155
Barium (dissolved)	mg/L	-	0.171	-	
Cadmium	mg/L	0.0007 U	0.0050 U	0.0050 U	0.0050 U
Cadmium (dissolved)	mg/L	-	0.0050 U	-	
Chromium	mg/L	0.005 U	0.0008 J	0.0017 J	0.0011 J
Chromium Total (dissolved)	mg/L	-	0.0100 U	-	
Copper	mg/L	0.002 U	0.0100 U	0.0015 J	0.0100 U
Copper (dissolved)	mg/L	-	0.0100 U	-	
Iron	mg/L	0.1 U	7.62	14.0	6.99
Iron (dissolved)	mg/L	--	5.25	-	-
Lead	mg/L	0.00106	0.0100 U	0.0029 J	0.0100 U
Lead (dissolved)	mg/L	-	0.0100 U	-	
Manganese	mg/L	--	5.24	4.85	4.40
Manganese (dissolved)	mg/L	-	4.97	-	-
Selenium	mg/L	0.000665 J	0.0200 U	0.0200 U	0.0200 U
Selenium (dissolved)	mg/L		0.0200 U	-	
Dissolved Gas					
Ethane	ug/L	9.0 U	9 U	9 U	9 U
Ethene	ug/L	7.0 U	7 U	7 U	7 U
Methane	ug/L	4.0 U	200	180	120
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	33.0	49.4	38.1	49.4
Ammonia	mg/L	0.020 U	0.174 J	0.370	0.185 J
Chloride	mg/L	1.8	18	15	15
Ferrous iron	mg/L	-	5.50 J	-	
Nitrate (as N)	mg/L	0.11 J	0.25 U	0.25 U	0.25 U
Orthophosphate	mg/L	0.0154	-	0.0100 U	0.0404

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Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
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		Bedrock Unit			
	Sample Location:	*MW-11A*	*MW-11A*	*MW-11A*	*MW-11A*
	Sample ID:	*GW-013926-101514-SAG-009*	*GW-013926-031815-SAG-010*	*GW-013926-102815-SAG-007*	*GW-013926-041316-MRB-009*
	Sample Date:	*10/15/2014*	*3/18/2015*	*10/28/2015*	*4/13/2016*
Parameters	***Units***				
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	8.8	8.2	6.5	9.9
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0	0.87 J	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	55	40	40	42
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

Historical Analytical R
Monitored Natural Attenuation in Sha
Aqua-Tech Environ
Greer, Spartanburg Coun

		Bedrock Unit			
	Sample Location:	*MW-11A*	*MW-11A*	*MW-11A*	*MW-11A*
	Sample ID:	*GW-013926-101514-SAG-009*	*GW-013926-031815-SAG-010*	*GW-013926-102815-SAG-007*	*GW-013926-041316-MRB-009*
	Sample Date:	*10/15/2014*	*3/18/2015*	*10/28/2015*	*4/13/2016*
Parameters	***Units***				
Metals					
Arsenic	mg/L	0.000659 J	0.000629 J	0.005 U	0.000367 J
Arsenic (dissolved)	mg/L	-	-	--	-
Barium	mg/L	0.125	0.125	0.104	0.12
Barium (dissolved)	mg/L	-	-	--	-
Cadmium	mg/L	0.000704	0.000525 J	0.00071	0.00116
Cadmium (dissolved)	mg/L	-	-	--	
Chromium	mg/L	0.005 U	0.005 U	0.000238 J	0.005 U
Chromium Total (dissolved)	mg/L	-	-	--	-
Copper	mg/L	0.00229	0.00241	0.000873 J	0.00219
Copper (dissolved)	mg/L	-	-	--	-
Iron	mg/L	0.656	0.549	0.366	0.191
Iron (dissolved)	mg/L	-	--	--	--
Lead	mg/L	0.00178	0.001 U	0.000471 J	0.00034 J
Lead (dissolved)	mg/L	-	-	--	-
Manganese	mg/L	3.61	3.11	2.76 J	--
Manganese (dissolved)	mg/L	-	--	--	-
Selenium	mg/L	0.005 U	0.005 U	0.000629 J	0.000652 J
Selenium (dissolved)	mg/L			--	
Dissolved Gas					
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U
Methane	ug/L	5	10	4.0 U	41
Wet Chemistry					
Alkalinity, total (as CaCO3)	mg/L	31.6	24.0	21.0	25.0
Ammonia	mg/L	0.041	0.074	0.020 J	0.020 U
Chloride	mg/L	15	13	11	14
Ferrous iron	mg/L	-	-	--	-
Nitrate (as N)	mg/L	0.18 J	0.17 J	0.15 J	0.48
Orthophosphate	mg/L	0.0170	0.0198	0.0170 U	0.0143

Attachment D
All Headers VOCs and HAPs Calculations

Appendix D

All Headers VOCs and HAPs Calculations
October 18, 2016 Pre-Carbon
Aqua-Tech Environmenta, Inc. Super Fund Site
Greer, Spartanburg County, South Carolina

	Acetone	Benzene [g]	Carbon Disulfide [g]	Chlorobenzene [g]	Chloroethane [g]	Chloromethane	1,1-Dichloroethane [g]	1,1-Dichloroethylene [g]	Dichlorodifluoro-methane
Molecular Weight [a]	58.08	78.11	76.14	112.6	64.52	50.46	98.96	96.94	120.91
Results in *µg/m³* [c]	77.9	92.3	3.1	10.3	40.0	6.3	147.0	12.9	38.2
Conversion of µg/m³ to mg/m³ [d]	0.08	0.09	0.00	0.01	0.04	0.01	0.15	0.01	0.04
Effluent Flow Rate (SCFM) ***370***									
mg/m³ to rate of lbs/hr [e]	0.00011	0.00013	0.00000	0.00001	0.00006	0.00001	0.00020	0.00002	0.00005
lbs/hr to tons/yr [f]	0.000473	0.000560	0.000019	0.000063	0.000243	0.000038	0.000892	0.000078	0.000232

Notes:

- a Molecular weight provided on laboratory report
- b µg/m³ is the initial unit of measurement in which the compound is reported, reported on laboratory report
- c Please refer to Equation 1 to the right
- d 1,000 *µg* is equal to 1 mg
- e Please refer to Equation 2 to the right
- g These compounds are considered HAPs (Hazardous Air Pollutants)

µg/m³	micrograms per cubic meter
mg/m³	milligrams per cubic meter
SCFM	Standard cubic feet per minute
lbs/hr	pounds per hour
tons/yr	tons per year
ft³	cubic feet
L	liter
nL	nanoliter

Equations and Conversions

*Calculations made with assumption of standard Temperatur and Pressure, using the constant of 24.45 L air

*Example calculation using Acetone

1. *Micrograms per cubic meter to pounds per hour*

$$\frac{\left(\frac{26.6\mu g}{m^3}\right)\left(\frac{1mg}{1\times10^3\mu g}\right)\left(\frac{370ft^3}{\min}\right)\left(\frac{60\min}{hr}\right)}{\left(\frac{35.31ft^3}{m^3}\right)\left(\frac{453{,}592mg}{lb}\right)} = 0.0000$$

2. *Hourly rate to tons per year*

$$\left(\frac{0.0000368lb}{hr}\right)\left(\frac{24hr}{day}\right)\left(\frac{365day}{yr}\right)\left(\frac{1ton}{2000lb}\right) =$$

Appendix D

All Headers VOCs and HAPs Calculations
October 18, 2016 Pre-Carbon
Aqua-Tech Environmenta, Inc. Super Fund Site
Greer, Spartanburg County, South Carolina

	Ethylbenzene [g]	*Freon 113*	*Methylene Chloride* [g]	*Methyl ethyl ketone* [g]	*Propylene*	*1,1,1-Trichloroethane* [g]	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*Tetrachloroethylene* [g]
Molecular Weight [a]	106.2	187.4	84.94	72.11	42.08	133.4	120.2	120.2	165.8
Results in *µg/m³* [c]	116.0	38.2	9.0	41.3	48.3	406.0	10.2	7.1	2140.0
Conversion of µg/m³ to mg/m³ [d]	0.12	0.04	0.01	0.04	0.05	0.41	0.01	0.01	2.14
Effluent Flow Rate (SCFM) ***370***									
mg/m³ to rate of lbs/hr [e]	0.00016	0.00005	0.00001	0.00006	0.00007	0.00056	0.00001	0.00001	0.00297
lbs/hr to tons/yr [f]	0.000704	0.000232	0.000055	0.000251	0.000293	0.002465	0.000062	0.000043	0.01299

Notes:

- a Molecular weight provided on laboratory report
- b µg/m3 is the initial unit of measurement in which the compound is reported, reported on laboratory report
- c Please refer to Equation 1 to the right
- d 1,000 *µg* is equal to 1 mg
- e Please refer to Equation 2 to the right
- g These compounds are considered HAPs (Hazardous Air Pollutants)

ppbv	parts per billion by volume
µg/m³	micrograms per cubic meter
mg/m³	milligrams per cubic meter
SCFM	Standard cubic feet per minute
lbs/hr	pounds per hour
tons/yr	tons per year
ft³	cubic feet
L	liter
nL	nanoliter

Equations and Conversions

*Calculations made with assumption of standard Temperature and Pressure, using the constant of 24.45 L air

*Example calculation using Acetone

1. *Micrograms per cubic meter to pounds per hour*

$$\frac{\left(\frac{26.6\mu g}{m^3}\right)\left(\frac{1mg}{1\times10^3\mu g}\right)\left(\frac{370ft^3}{\min}\right)\left(\frac{60\min}{hr}\right)}{\left(\frac{35.31ft^3}{m^3}\right)\left(\frac{453{,}592mg}{lb}\right)} = 0.0000368$$

2. *Hourly rate to tons per year*

$$\left(\frac{0.0000368lb}{}\right)\left(\frac{24hr}{}\right)\left(\frac{365day}{}\right)\left(\frac{1ton}{}\right) = 0.000162$$

Attachment E
Soil Vapor Laboratory Report

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 21, 2016

Paul McMahon
CRA
2055 Niagara Falls Boulevard
Suite #3
Niagara Falls, NY 14304

RE: Project: Aquatec
Pace Project No.: 92316590

Dear Paul McMahon:
Enclosed are the analytical results for sample(s) received by the laboratory on October 19, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Matthew Brainard

Matthew Brainard for
Taylor Ezell
taylor.ezell@pacelabs.com
Project Manager

Enclosures

cc: Terefe Mazengia, CRA

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Aquatec
Pace Project No.: 92316590

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
Alaska Certification UST-107
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: Aquatec
Pace Project No.: 92316590

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92316590001	**A-101816-01**	Air	10/18/16 09:05	10/19/16 14:32

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SAMPLE ANALYTE COUNT

Project: Aquatec
Pace Project No.: 92316590

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92316590001	A-101816-01	TO-15	MJL	59	PASI-M

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SUMMARY OF DETECTION

Project: Aquatec
Pace Project No.: 92316590

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92316590001	**A-101816-01**					
TO-15	Acetone	77.9	ug/m3	8.1	10/21/16 15:16	
TO-15	Benzene	92.3	ug/m3	0.44	10/21/16 15:16	
TO-15	2-Butanone (MEK)	41.3	ug/m3	4.0	10/21/16 15:16	
TO-15	Carbon disulfide	3.1	ug/m3	0.84	10/21/16 15:16	
TO-15	Carbon tetrachloride	0.77J	ug/m3	4.3	10/21/16 15:16	
TO-15	Chlorobenzene	10.3	ug/m3	1.3	10/21/16 15:16	
TO-15	Chloroethane	40.0	ug/m3	0.72	10/21/16 15:16	
TO-15	Chloroform	14.3	ug/m3	0.66	10/21/16 15:16	
TO-15	Chloromethane	6.3	ug/m3	0.56	10/21/16 15:16	
TO-15	1,2-Dichlorobenzene	30.5	ug/m3	1.6	10/21/16 15:16	
TO-15	1,3-Dichlorobenzene	7.0	ug/m3	1.6	10/21/16 15:16	
TO-15	1,4-Dichlorobenzene	68.5	ug/m3	1.6	10/21/16 15:16	
TO-15	Dichlorodifluoromethane	38.2	ug/m3	1.4	10/21/16 15:16	
TO-15	1,1-Dichloroethane	147	ug/m3	44.0	10/24/16 18:31	A3
TO-15	1,1-Dichloroethene	12.9	ug/m3	1.1	10/21/16 15:16	
TO-15	cis-1,2-Dichloroethene	1830	ug/m3	43.4	10/24/16 18:31	A3
TO-15	trans-1,2-Dichloroethene	13.7	ug/m3	1.1	10/21/16 15:16	
TO-15	Dichlorotetrafluoroethane	36.4	ug/m3	1.9	10/21/16 15:16	
TO-15	Ethylbenzene	116	ug/m3	1.2	10/21/16 15:16	
TO-15	4-Ethyltoluene	4.0	ug/m3	1.3	10/21/16 15:16	
TO-15	n-Heptane	28.4	ug/m3	1.1	10/21/16 15:16	
TO-15	n-Hexane	16.4	ug/m3	2.4	10/21/16 15:16	
TO-15	2-Hexanone	10.7	ug/m3	5.6	10/21/16 15:16	
TO-15	Methylene Chloride	9.0J	ug/m3	11.8	10/21/16 15:16	L1
TO-15	Naphthalene	10.2	ug/m3	3.6	10/21/16 15:16	
TO-15	Propylene	48.3	ug/m3	0.47	10/21/16 15:16	
TO-15	Tetrachloroethene	2140	ug/m3	36.9	10/24/16 18:31	A3
TO-15	Tetrahydrofuran	4.1	ug/m3	0.80	10/21/16 15:16	
TO-15	THC as Gas	15000	ug/m3	139	10/21/16 15:16	
TO-15	Toluene	208	ug/m3	41.3	10/24/16 18:31	A3
TO-15	1,2,4-Trichlorobenzene	9.0	ug/m3	5.1	10/21/16 15:16	
TO-15	1,1,1-Trichloroethane	406	ug/m3	59.5	10/24/16 18:31	A3
TO-15	Trichloroethene	2240	ug/m3	29.5	10/24/16 18:31	A3
TO-15	Trichlorofluoromethane	3.8	ug/m3	1.5	10/21/16 15:16	
TO-15	1,1,2-Trichlorotrifluoroethane	271	ug/m3	2.1	10/21/16 15:16	
TO-15	1,2,4-Trimethylbenzene	10.2	ug/m3	1.3	10/21/16 15:16	
TO-15	1,3,5-Trimethylbenzene	7.1	ug/m3	1.3	10/21/16 15:16	
TO-15	Vinyl chloride	205	ug/m3	13.9	10/24/16 18:31	A3
TO-15	m&p-Xylene	285	ug/m3	2.4	10/21/16 15:16	
TO-15	o-Xylene	107	ug/m3	1.2	10/21/16 15:16	

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PROJECT NARRATIVE

Project: Aquatec
Pace Project No.: 92316590

Method: **TO-15**
Description: TO15 MSV AIR
Client: GHD Duluth, GA
Date: November 21, 2016

General Information:
1 sample was analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 442603

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
- LCS (Lab ID: 2411976)
  - Dibromochloromethane

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 442603

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
- LCS (Lab ID: 2411976)
  - Methylene Chloride

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 442603

A3: This result is reported from a serial dilution.
- A-101816-01 (Lab ID: 92316590001)
  - 1,1-Dichloroethane
  - 1,1,1-Trichloroethane
  - cis-1,2-Dichloroethene

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PROJECT NARRATIVE

Project: Aquatec
Pace Project No.: 92316590

Method: **TO-15**
Description: TO15 MSV AIR
Client: GHD Duluth, GA
Date: November 21, 2016

Analyte Comments:

QC Batch: 442603

A3: This result is reported from a serial dilution.

- A-101816-01 (Lab ID: 92316590001)
  - Tetrachloroethene
  - Toluene
  - Trichloroethene
  - Vinyl chloride

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Aquatec
Pace Project No.: 92316590

Sample: A-101816-01 **Lab ID: 92316590001** Collected: 10/18/16 09:05 Received: 10/19/16 14:32 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Acetone	**77.9**	ug/m3	8.1	1.1	1.34		10/21/16 15:16	67-64-1	
Benzene	**92.3**	ug/m3	0.44	0.16	1.34		10/21/16 15:16	71-43-2	
Bromodichloromethane	ND	ug/m3	1.8	0.26	1.34		10/21/16 15:16	75-27-4	
Bromoform	ND	ug/m3	2.8	1.2	1.34		10/21/16 15:16	75-25-2	
Bromomethane	ND	ug/m3	1.1	0.42	1.34		10/21/16 15:16	74-83-9	
1,3-Butadiene	ND	ug/m3	0.60	0.24	1.34		10/21/16 15:16	106-99-0	
2-Butanone (MEK)	**41.3**	ug/m3	4.0	0.31	1.34		10/21/16 15:16	78-93-3	
Carbon disulfide	**3.1**	ug/m3	0.84	0.14	1.34		10/21/16 15:16	75-15-0	
Carbon tetrachloride	**0.77J**	ug/m3	4.3	0.26	1.34		10/21/16 15:16	56-23-5	
Chlorobenzene	**10.3**	ug/m3	1.3	0.18	1.34		10/21/16 15:16	108-90-7	
Chloroethane	**40.0**	ug/m3	0.72	0.26	1.34		10/21/16 15:16	75-00-3	
Chloroform	**14.3**	ug/m3	0.66	0.25	1.34		10/21/16 15:16	67-66-3	
Chloromethane	**6.3**	ug/m3	0.56	0.14	1.34		10/21/16 15:16	74-87-3	
Cyclohexane	ND	ug/m3	0.94	0.42	1.34		10/21/16 15:16	110-82-7	
Dibromochloromethane	ND	ug/m3	2.3	1.1	1.34		10/21/16 15:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.1	1.0	1.34		10/21/16 15:16	106-93-4	
1,2-Dichlorobenzene	**30.5**	ug/m3	1.6	0.69	1.34		10/21/16 15:16	95-50-1	
1,3-Dichlorobenzene	**7.0**	ug/m3	1.6	0.71	1.34		10/21/16 15:16	541-73-1	
1,4-Dichlorobenzene	**68.5**	ug/m3	1.6	0.67	1.34		10/21/16 15:16	106-46-7	
Dichlorodifluoromethane	**38.2**	ug/m3	1.4	0.64	1.34		10/21/16 15:16	75-71-8	
1,1-Dichloroethane	**147**	ug/m3	44.0	8.4	53.6		10/24/16 18:31	75-34-3	A3
1,2-Dichloroethane	ND	ug/m3	0.55	0.27	1.34		10/21/16 15:16	107-06-2	
1,1-Dichloroethene	**12.9**	ug/m3	1.1	0.32	1.34		10/21/16 15:16	75-35-4	
cis-1,2-Dichloroethene	**1830**	ug/m3	43.4	13.2	53.6		10/24/16 18:31	156-59-2	A3
trans-1,2-Dichloroethene	**13.7**	ug/m3	1.1	0.51	1.34		10/21/16 15:16	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.3	0.36	1.34		10/21/16 15:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	0.49	1.34		10/21/16 15:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	0.35	1.34		10/21/16 15:16	10061-02-6	
Dichlorotetrafluoroethane	**36.4**	ug/m3	1.9	0.42	1.34		10/21/16 15:16	76-14-2	
Ethyl acetate	ND	ug/m3	0.98	0.47	1.34		10/21/16 15:16	141-78-6	
Ethylbenzene	**116**	ug/m3	1.2	0.57	1.34		10/21/16 15:16	100-41-4	
4-Ethyltoluene	**4.0**	ug/m3	1.3	0.25	1.34		10/21/16 15:16	622-96-8	
n-Heptane	**28.4**	ug/m3	1.1	0.37	1.34		10/21/16 15:16	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.9	0.87	1.34		10/21/16 15:16	87-68-3	
n-Hexane	**16.4**	ug/m3	2.4	0.48	1.34		10/21/16 15:16	110-54-3	
2-Hexanone	**10.7**	ug/m3	5.6	0.55	1.34		10/21/16 15:16	591-78-6	
Methylene Chloride	**9.0J**	ug/m3	11.8	0.73	1.34		10/21/16 15:16	75-09-2	L1
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.6	0.29	1.34		10/21/16 15:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	4.9	0.41	1.34		10/21/16 15:16	1634-04-4	
Naphthalene	**10.2**	ug/m3	3.6	0.41	1.34		10/21/16 15:16	91-20-3	
Propylene	**48.3**	ug/m3	0.47	0.18	1.34		10/21/16 15:16	115-07-1	
Styrene	ND	ug/m3	1.2	0.26	1.34		10/21/16 15:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.94	0.44	1.34		10/21/16 15:16	79-34-5	
Tetrachloroethene	**2140**	ug/m3	36.9	14.9	53.6		10/24/16 18:31	127-18-4	A3
Tetrahydrofuran	**4.1**	ug/m3	0.80	0.16	1.34		10/21/16 15:16	109-99-9	
THC as Gas	**15000**	ug/m3	139	47.7	1.34		10/21/16 15:16		

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ANALYTICAL RESULTS

Project: Aquatec
Pace Project No.: 92316590

Sample: A-101816-01 **Lab ID: 92316590001** Collected: 10/18/16 09:05 Received: 10/19/16 14:32 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Toluene	**208**	ug/m3	41.3	8.3	53.6		10/24/16 18:31	108-88-3	A3
1,2,4-Trichlorobenzene	**9.0**	ug/m3	5.1	1.2	1.34		10/21/16 15:16	120-82-1	
1,1,1-Trichloroethane	**406**	ug/m3	59.5	13.2	53.6		10/24/16 18:31	71-55-6	A3
1,1,2-Trichloroethane	ND	ug/m3	0.74	0.33	1.34		10/21/16 15:16	79-00-5	
Trichloroethene	**2240**	ug/m3	29.5	14.8	53.6		10/24/16 18:31	79-01-6	A3
Trichlorofluoromethane	**3.8**	ug/m3	1.5	0.18	1.34		10/21/16 15:16	75-69-4	
1,1,2-Trichlorotrifluoroethane	**271**	ug/m3	2.1	0.40	1.34		10/21/16 15:16	76-13-1	
1,2,4-Trimethylbenzene	**10.2**	ug/m3	1.3	0.17	1.34		10/21/16 15:16	95-63-6	
1,3,5-Trimethylbenzene	**7.1**	ug/m3	1.3	0.25	1.34		10/21/16 15:16	108-67-8	
Vinyl acetate	ND	ug/m3	0.96	0.44	1.34		10/21/16 15:16	108-05-4	
Vinyl chloride	**205**	ug/m3	13.9	10.5	53.6		10/24/16 18:31	75-01-4	A3
m&p-Xylene	**285**	ug/m3	2.4	1.1	1.34		10/21/16 15:16	179601-23-1	
o-Xylene	**107**	ug/m3	1.2	0.47	1.34		10/21/16 15:16	95-47-6	

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QUALITY CONTROL DATA

Project: Aquatec
Pace Project No.: 92316590

QC Batch: 442603
QC Batch Method: TO-15
Associated Lab Samples: 92316590001

Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level

METHOD BLANK: 2411975
Associated Lab Samples: 92316590001

Matrix: Air

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	0.25	10/21/16 11:13	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	0.33	10/21/16 11:13	
1,1,2-Trichloroethane	ug/m3	ND	0.55	0.25	10/21/16 11:13	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	0.30	10/21/16 11:13	
1,1-Dichloroethane	ug/m3	ND	0.82	0.16	10/21/16 11:13	
1,1-Dichloroethene	ug/m3	ND	0.81	0.24	10/21/16 11:13	
1,2,4-Trichlorobenzene	ug/m3	ND	3.8	0.91	10/21/16 11:13	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	0.12	10/21/16 11:13	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	0.77	10/21/16 11:13	
1,2-Dichlorobenzene	ug/m3	ND	1.2	0.51	10/21/16 11:13	
1,2-Dichloroethane	ug/m3	ND	0.41	0.20	10/21/16 11:13	
1,2-Dichloropropane	ug/m3	ND	0.94	0.27	10/21/16 11:13	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	0.18	10/21/16 11:13	
1,3-Butadiene	ug/m3	ND	0.45	0.18	10/21/16 11:13	
1,3-Dichlorobenzene	ug/m3	ND	1.2	0.53	10/21/16 11:13	
1,4-Dichlorobenzene	ug/m3	ND	1.2	0.50	10/21/16 11:13	
2-Butanone (MEK)	ug/m3	ND	3.0	0.23	10/21/16 11:13	
2-Hexanone	ug/m3	ND	4.2	0.41	10/21/16 11:13	
4-Ethyltoluene	ug/m3	ND	1.0	0.19	10/21/16 11:13	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	4.2	0.22	10/21/16 11:13	
Acetone	ug/m3	ND	6.0	0.83	10/21/16 11:13	
Benzene	ug/m3	ND	0.32	0.12	10/21/16 11:13	
Bromodichloromethane	ug/m3	ND	1.4	0.19	10/21/16 11:13	
Bromoform	ug/m3	ND	2.1	0.90	10/21/16 11:13	
Bromomethane	ug/m3	ND	0.79	0.31	10/21/16 11:13	
Carbon disulfide	ug/m3	ND	0.63	0.10	10/21/16 11:13	
Carbon tetrachloride	ug/m3	ND	3.2	0.19	10/21/16 11:13	
Chlorobenzene	ug/m3	ND	0.94	0.13	10/21/16 11:13	
Chloroethane	ug/m3	ND	0.54	0.19	10/21/16 11:13	
Chloroform	ug/m3	ND	0.50	0.19	10/21/16 11:13	
Chloromethane	ug/m3	ND	0.42	0.11	10/21/16 11:13	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	0.25	10/21/16 11:13	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	0.37	10/21/16 11:13	
Cyclohexane	ug/m3	ND	0.70	0.32	10/21/16 11:13	
Dibromochloromethane	ug/m3	ND	1.7	0.86	10/21/16 11:13	
Dichlorodifluoromethane	ug/m3	ND	1.0	0.48	10/21/16 11:13	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	0.31	10/21/16 11:13	
Ethyl acetate	ug/m3	ND	0.73	0.35	10/21/16 11:13	
Ethylbenzene	ug/m3	ND	0.88	0.42	10/21/16 11:13	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	0.65	10/21/16 11:13	
m&p-Xylene	ug/m3	ND	1.8	0.79	10/21/16 11:13	

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QUALITY CONTROL DATA

Project: Aquatec
Pace Project No.: 92316590

METHOD BLANK: 2411975 Matrix: Air
Associated Lab Samples: 92316590001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methyl-tert-butyl ether	ug/m3	ND	3.7	0.30	10/21/16 11:13	
Methylene Chloride	ug/m3	ND	8.8	0.54	10/21/16 11:13	
n-Heptane	ug/m3	ND	0.83	0.28	10/21/16 11:13	
n-Hexane	ug/m3	ND	1.8	0.36	10/21/16 11:13	
Naphthalene	ug/m3	ND	2.7	0.30	10/21/16 11:13	
o-Xylene	ug/m3	ND	0.88	0.35	10/21/16 11:13	
Propylene	ug/m3	ND	0.35	0.14	10/21/16 11:13	
Styrene	ug/m3	ND	0.87	0.19	10/21/16 11:13	
Tetrachloroethene	ug/m3	ND	0.69	0.28	10/21/16 11:13	
Tetrahydrofuran	ug/m3	ND	0.60	0.12	10/21/16 11:13	
THC as Gas	ug/m3	ND	104	35.6	10/21/16 11:13	
Toluene	ug/m3	ND	0.77	0.15	10/21/16 11:13	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	0.38	10/21/16 11:13	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	0.26	10/21/16 11:13	
Trichloroethene	ug/m3	ND	0.55	0.28	10/21/16 11:13	
Trichlorofluoromethane	ug/m3	ND	1.1	0.13	10/21/16 11:13	
Vinyl acetate	ug/m3	ND	0.72	0.33	10/21/16 11:13	
Vinyl chloride	ug/m3	ND	0.26	0.20	10/21/16 11:13	

LABORATORY CONTROL SAMPLE: 2411976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	60.8	109	60-143	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	85.0	122	49-150	
1,1,2-Trichloroethane	ug/m3	55.5	60.9	110	57-149	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	88.1	113	66-131	
1,1-Dichloroethane	ug/m3	41.2	43.5	106	62-139	
1,1-Dichloroethene	ug/m3	40.3	45.6	113	62-135	
1,2,4-Trichlorobenzene	ug/m3	75.5	75.6	100	55-146	
1,2,4-Trimethylbenzene	ug/m3	50	53.3	107	57-143	
1,2-Dibromoethane (EDB)	ug/m3	78.1	90.0	115	63-150	
1,2-Dichlorobenzene	ug/m3	61.2	73.1	120	57-141	
1,2-Dichloroethane	ug/m3	41.2	44.8	109	61-144	
1,2-Dichloropropane	ug/m3	47	56.1	119	63-144	
1,3,5-Trimethylbenzene	ug/m3	50	53.9	108	54-147	
1,3-Butadiene	ug/m3	22.5	25.9	115	61-140	
1,3-Dichlorobenzene	ug/m3	61.2	72.2	118	51-150	
1,4-Dichlorobenzene	ug/m3	61.2	71.0	116	57-143	
2-Butanone (MEK)	ug/m3	30	33.5	112	66-144	
2-Hexanone	ug/m3	104	132	127	63-147	
4-Ethyltoluene	ug/m3	50	63.3	127	56-150	
4-Methyl-2-pentanone (MIBK)	ug/m3	104	127	122	58-150	
Acetone	ug/m3	121	153	126	46-140	
Benzene	ug/m3	32.5	35.2	108	62-141	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Aquatec
Pace Project No.: 92316590

LABORATORY CONTROL SAMPLE: 2411976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromodichloromethane	ug/m3	68.2	84.6	124	58-149	
Bromoform	ug/m3	105	111	105	61-150	
Bromomethane	ug/m3	39.5	43.8	111	58-136	
Carbon disulfide	ug/m3	31.7	36.6	116	59-135	
Carbon tetrachloride	ug/m3	64	65.5	102	60-149	
Chlorobenzene	ug/m3	46.8	51.1	109	60-150	
Chloroethane	ug/m3	26.8	32.6	121	61-136	
Chloroform	ug/m3	49.7	54.2	109	65-138	
Chloromethane	ug/m3	21	25.4	121	62-133	
cis-1,2-Dichloroethene	ug/m3	40.3	45.0	112	65-139	
cis-1,3-Dichloropropene	ug/m3	46.2	59.2	128	61-149	
Cyclohexane	ug/m3	35	40.1	115	64-134	
Dibromochloromethane	ug/m3	86.6	113	130	59-150	CH
Dichlorodifluoromethane	ug/m3	50.3	54.0	107	63-134	
Dichlorotetrafluoroethane	ug/m3	71.1	78.3	110	62-134	
Ethyl acetate	ug/m3	36.6	42.5	116	55-146	
Ethylbenzene	ug/m3	44.2	49.5	112	59-149	
Hexachloro-1,3-butadiene	ug/m3	108	104	96	42-150	
m&p-Xylene	ug/m3	88.3	95.3	108	59-146	
Methyl-tert-butyl ether	ug/m3	91.6	96.0	105	64-135	
Methylene Chloride	ug/m3	177	228	129	64-128	L1
n-Heptane	ug/m3	41.7	49.8	119	64-140	
n-Hexane	ug/m3	35.8	44.9	125	50-138	
Naphthalene	ug/m3	53.3	57.4	108	46-146	
o-Xylene	ug/m3	44.2	47.2	107	54-149	
Propylene	ug/m3	17.5	22.5	128	58-135	
Styrene	ug/m3	43.3	52.0	120	54-150	
Tetrachloroethene	ug/m3	69	68.4	99	60-142	
Tetrahydrofuran	ug/m3	30	35.8	119	56-143	
THC as Gas	ug/m3	5130	5760	112	68-145	
Toluene	ug/m3	38.3	45.3	118	61-138	
trans-1,2-Dichloroethene	ug/m3	40.3	43.6	108	67-137	
trans-1,3-Dichloropropene	ug/m3	46.2	52.9	115	59-145	
Trichloroethene	ug/m3	54.6	57.9	106	60-144	
Trichlorofluoromethane	ug/m3	57.1	60.8	106	59-134	
Vinyl acetate	ug/m3	35.8	37.1	104	55-143	
Vinyl chloride	ug/m3	26	31.2	120	63-135	

SAMPLE DUPLICATE: 2413167

Parameter	Units	10365960001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	1.0J	1.0J		25	
1,1,2,2-Tetrachloroethane	ug/m3	<0.70	4.5		25	
1,1,2-Trichloroethane	ug/m3	<0.52	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	0.87J	ND		25	

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QUALITY CONTROL DATA

Project: Aquatec
Pace Project No.: 92316590

SAMPLE DUPLICATE: 2413167

Parameter	Units	10365960001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethane	ug/m3	<0.33	ND		25	
1,1-Dichloroethene	ug/m3	<0.50	ND		25	
1,2,4-Trichlorobenzene	ug/m3	<1.9	ND		25	
1,2,4-Trimethylbenzene	ug/m3	106	107	1	25	
1,2-Dibromoethane (EDB)	ug/m3	<1.6	ND		25	
1,2-Dichlorobenzene	ug/m3	<1.1	ND		25	
1,2-Dichloroethane	ug/m3	<0.43	ND		25	
1,2-Dichloropropane	ug/m3	<0.57	1.1J		25	
1,3,5-Trimethylbenzene	ug/m3	28.5	29.0	2	25	
1,3-Butadiene	ug/m3	<0.37	ND		25	
1,3-Dichlorobenzene	ug/m3	<1.1	ND		25	
1,4-Dichlorobenzene	ug/m3	<1.1	ND		25	
2-Butanone (MEK)	ug/m3	24.2	24.4	1	25	
2-Hexanone	ug/m3	3.0J	2.9J		25	
4-Ethyltoluene	ug/m3	29.7	33.8	13	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	20.5	20.7	1	25	
Acetone	ug/m3	151	152	1	25	
Benzene	ug/m3	10.4	10.6	2	25	
Bromodichloromethane	ug/m3	<0.41	ND		25	
Bromoform	ug/m3	<1.9	ND		25	
Bromomethane	ug/m3	<0.66	ND		25	
Carbon disulfide	ug/m3	<0.21	ND		25	
Carbon tetrachloride	ug/m3	0.96J	0.97J		25	
Chlorobenzene	ug/m3	<0.28	ND		25	
Chloroethane	ug/m3	<0.41	ND		25	
Chloroform	ug/m3	<0.40	ND		25	
Chloromethane	ug/m3	<0.23	0.46J		25	
cis-1,2-Dichloroethene	ug/m3	<0.52	ND		25	
cis-1,3-Dichloropropene	ug/m3	<0.78	ND		25	
Cyclohexane	ug/m3	37.7	38.8	3	25	
Dibromochloromethane	ug/m3	<1.8	ND		25	
Dichlorodifluoromethane	ug/m3	11.0	10.8	2	25	
Dichlorotetrafluoroethane	ug/m3	<0.66	ND		25	
Ethyl acetate	ug/m3	2.1	2.2	5	25	
Ethylbenzene	ug/m3	53.6	53.3	1	25	
Hexachloro-1,3-butadiene	ug/m3	<1.4	ND		25	
m&p-Xylene	ug/m3	175	175	0	25	
Methyl-tert-butyl ether	ug/m3	<0.64	ND		25	
Methylene Chloride	ug/m3	4.2J	5.5J		25	
n-Heptane	ug/m3	28.5	29.4	3	25	
n-Hexane	ug/m3	21.7	22.3	2	25	
Naphthalene	ug/m3	58.6	61.9	5	25	
o-Xylene	ug/m3	72.6	73.5	1	25	
Propylene	ug/m3	<0.29	ND		25	
Styrene	ug/m3	6.3	6.4	1	25	
Tetrachloroethene	ug/m3	250	252	1	25	
Tetrahydrofuran	ug/m3	24.5	24.8	1	25	

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QUALITY CONTROL DATA

Project: Aquatec
Pace Project No.: 92316590

SAMPLE DUPLICATE: 2413167

Parameter	Units	10365960001 Result	Dup Result	RPD	Max RPD	Qualifiers
THC as Gas	ug/m3	6060	6220	3	25	
Toluene	ug/m3	199	201	1	25	
trans-1,2-Dichloroethene	ug/m3	<0.81	ND		25	
trans-1,3-Dichloropropene	ug/m3	<0.55	ND		25	
Trichloroethene	ug/m3	5.5	5.6	2	25	
Trichlorofluoromethane	ug/m3	2.2J	2.3J		25	
Vinyl acetate	ug/m3	5.2	4.6	11	25	
Vinyl chloride	ug/m3	<0.41	ND		25	

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QUALIFIERS

Project: Aquatec
Pace Project No.: 92316590

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

A3	This result is reported from a serial dilution.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Aquatec
Pace Project No.: 92316590

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92316590001	**A-101816-01**	TO-15	442603		

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Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26APR2016 Page 1 of 1
	Document No.: F-MN-A-106-rev.1*	Issuing Authority:

Air Sample Condition Upon Receipt

Client Name: Pace NC

Proj **WO# : 92316590**

92316590

Courier: ☑ Fed Ex ☐ UPS ☐ Speedee ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 7774 9686 3335

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No Seals Intact? ☐ Yes ☒ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Tin Can ☐ Other: Temp Blank rec: ☐ Yes ☒ No

Temp. (TO17 and TO13 samples only) (°C): X Corrected Temp (°C): X Thermom. Used: ☐ B88A912167504 ☐ B88A0143310098 ☐ 151401163 ☐ 151401164

Temp should be above freezing to 6°C Correction Factor: X Date & Initials of Person Examining Contents: 8/19/16

Type of ice Received ☐ Blue ☐ Wet ☒ None

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Media: (Air Can) Airbag Filter TDT Passive				11.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12.

Samples Received:

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 10/19

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical
www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

29239

Page: 1 of 1

Section A Required Client Information:

Company: GHD
Address: 3615 Buckingham Blvd Duluth Ga 30096
Email To:
Phone: 770 441 0027 Fax: 770 441 2032
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: Aplatex
Project Number: 013926

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager/Sales Rep: Pace NC
Pace Profile #:

Program: UST, Superfund, Emissions, Clean Air Act, Voluntary Clean Up, Dry Clean, RCRA, Other

Location of Sampling by State

Reporting Units: µg/m³ mg/m³ PPBV PPMV Other

Report Level: II. III. IV. Other

*Section D Required Client Information

AIR SAMPLE ID

Sample IDs MUST BE UNIQUE

Valid Media Codes: METRA CODE; Tedlar Bag TB; 1 Liter Summa Can 1LC; 6 Liter Summa Can 6LC; Low Volume Puff LVP; High Volume Puff HVP; Other PM10

ITEM #	Sample ID	MEDIA CODE	PID Reading (Ppm only)	COLLECTED Composite Start Date	Composite Start Time	Composite End Date	Composite End Time	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	PM10	3C-Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15	TO15 Short List	Pace Lab ID
1	A-101816-BKL-01	6LC		10/18/16	9:05			-30	0	1565									X		

Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
B Longo	10/18/16	15:00	Patty Pace	10/19/16	0930	AMB

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Brian Longo
SIGNATURE of SAMPLER: B Longo
DATE Signed (MM / DD / YY): 10/18/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

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#3

June 27, 2017

Reference No. 013926

Ms. Yvonne O. Jones
Remedial Project Manager
US EPA, REGION 4
Waste Management Division
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960

Dear Ms. Jones:

Re: April 2017 Semi-Annual Groundwater Monitoring and SVE Emission Monitoring
Aqua-Tech Environmental, Inc. Superfund Site
Greer, Spartanburg County, South Carolina

GHD conducted the semi-annual groundwater monitoring at the Aqua-Tech Environmental, Inc. Superfund Site (Site) in accordance with the approved Remedial Design Work Plan dated September 2006. Groundwater monitoring was performed in the two separate areas of the Site as follows:

- Administration Area (northeast portion of the Site); and
- Downgradient Area (western portion of the Site).

This letter summarizes the April 2017 sampling procedures and results of the post-injection performance monitoring at the Administrative Area and the Monitored Natural Attenuation (MNA) groundwater monitoring at the Downgradient Area, and the air sampling from the soil vapor extraction (SVE) system.

1. Introduction

1.1 Administration Area

The April 2017 event was completed as part of the semi-annual sampling program following the March 2011 full-scale ISCO injection at the former Administrative Area. The injection locations and subsequent monitoring wells are presented on Figure 1. The April 2017 sampling event was the twelfth post-injection groundwater monitoring event which has been conducted since March 2011.

1.2 Downgradient Area

Wells in and around the Downgradient Area (area south of MW-12, MW-11A, MW-41, MW-42, etc.) including select monitoring wells from all three water bearing units, are included in the MNA assessment as shown on Figure 2. Based on the recommendations presented in the Final Construction Report, Part II, groundwater sampling of select monitoring wells for MNA evaluation is performed to monitor the natural attenuation rate in the groundwater at the Downgradient Area.

1.3 SVE Emission Testing

Routine semi-annual monitoring of the emissions from the SVE system is conducted, pursuant to the operation and maintenance (O&M) plan for the continuous operation of the SVE system.

2. Groundwater Monitoring

The depth to groundwater was measured in all Site monitoring wells during this sampling event (April 2017) and the measurements are summarized in Table 1. The groundwater elevation maps generated based on the April 17, 2017 groundwater elevations are presented on Figures 3A, 3B and 3C for the saprolite, shallow bedrock and bedrock water bearing units, respectively. Groundwater flow direction in all these units was consistent with previous monitoring events.

2.1 Groundwater Sampling

Groundwater sampling activities were conducted in general accordance with the recommendations provided in United States Environmental Protection Agency (USEPA) Region IV Field Branches Quality Systems and Technical Procedures (FBQSTP), Science and Ecosystem Support Division (SESD) Procedure Number SESDPROC-301-R3 (Groundwater Sampling). Each sampling location was purged under low-flow conditions using a bladder pump fitted with dedicated ¼-inch outer diameter (¼"-OD) polyethylene tubing. Field parameters (i.e., temperature, conductivity, turbidity, dissolved oxygen [DO], pH, and oxidation-reduction potential [ORP]) were measured in the flow-through cell of a calibrated, multi-parameter water quality meter[1]. Flow rates were maintained within a range of 65 milliliters per minute (mL/min) to 125 mL/min and depths to groundwater were measured to monitor drawdown. Stabilization of the field parameters indicated entry of representative formation water into the screened interval. Upon stabilization, sampling was performed with the same equipment used for purging. Select monitoring wells (MW-7A, MW-41, MW-42 and TW-2) were purged using the multi-volume purging method due to the significant drawdown that occurred during implementation of the low-flow purging method. Records of the monitoring well low-flow and multi-volume purging for the April 2017 monitoring event are included in Attachment A. Samples were collected directly into laboratory supplied pre-cleaned sample jars. All groundwater samples were preserved in ice-filled coolers and picked up by Analytical Environmental Services, Inc. (AES) courier service; the samples were relinquished to the courier under standard chain of custody (COCs) protocols.

A blind duplicate sample was collected from monitoring well MW-35 (GW-013926-042017-SAG-009) and one matrix spike/matrix spike duplicate (MS/MSD) sample was collected from MW-35 (GW-013926-042017-SAG-008) and submitted to AES for quality assurance/quality control (QA/QC) purposes.

3. Performance Groundwater Monitoring - Administrative Area

Pre- and post-injection groundwater sampling was performed at the Administrative Area (full-scale ISCO) in and downgradient of the injection zone. The pre- and post-injection groundwater performance monitoring sampling was conducted at monitoring well locations MW-27, MW-28, MW-32, MW-39 and MW-40. The groundwater performance monitoring locations are illustrated on Figure 1.

---

1 Horiba U-53 Multi-parameters Water Quality measuring instrument.

Each groundwater sample was analyzed for the following parameters:

- Field parameters (i.e., pH, conductivity, oxidation-reduction potential [ORP], dissolved oxygen [DO] and temperature);
- Volatile organic compounds (VOCs) and target analyte list (TAL) metals; and
- Geochemical parameters.

3.1 Analytical Results

During this event, PCE concentrations were reported more than 66 percent (%) lower than concentrations prior to the full-scale injection. PCE concentrations decreased up to 83 % in monitoring wells MW-27 (310 micrograms per liter [µg/L]), MW-28 (470 µg/L) and MW-32 (680 µg/L) compared to the baseline pre-injection concentrations. Concentrations have been generally stable in the injection area wells with minor variations. Concentrations of PCE in the downgradient well MW-39 continue to trend lower; concentration of PCE in well MW-39 shows up to 81% reduction as compared to the pre-injection concentrations.

Concentrations of sodium and sulfate show a decreasing trend at all monitoring locations. During this sampling event, concentrations of sodium ranged from 56.2 mg/L (MW-28) to 6.86 mg/L (MW-40) and sulfate concentrations ranged from 9.9 mg/L (MW-32) to 5.9 mg/L (MW-39).

Groundwater analytical results for the pre- and select post-injection events are summarized in Table 2. The sample keys, data quality assessment and validation memorandums, and complete analytical data reports for the April 2017 post-injection groundwater sampling event are included in Attachment B. Analytical results for all pre- and post- injection events are summarized in the tables provided in Attachment C.

3.2 Summary of Results

Reductions in PCE concentrations at the injection area ranged from 66 % in monitoring well MW-32 to 88 % in monitoring well MW-40. PCE concentrations within the injection area encompassing MW-27, MW-28, and MW-32 have remained stable or are showing a downward trend. Comparisons of the concentrations of select parameters prior to and post-ISCO injection are presented in Table 3. PCE concentrations in downgradient monitoring wells MW-39 and MW-40 were lower or stable suggesting the original source area is no longer contributing to degradation of the downgradient groundwater.

The downgradient concentrations of sodium, sulfate and ORP values (see Table 3) also demonstrated the continued influence of the injection based on the presence of the oxidant and suggesting the continuation of the oxidation reaction. DO concentrations ranged from 5.64 mg/L at MW-39 to 1.17 mg/L at MW-27; ORP values ranged from 194 mV at MW-32 to 320 mV at MW-40 in groundwater samples.

The pre- and post-injection groundwater VOC detections in the former Administrative Area are presented on Figure 4.

The groundwater monitoring data indicate that the chemical oxidation rate of VOCs is decreasing as anticipated. Based on the overall results of the ISCO injection, chemical oxidation of VOCs in groundwater using activated sodium persulfate was successful and substantially reduced residual VOC mass from the groundwater in the Administration Area. Although still significantly below pre-injection concentrations, variations in PCE concentrations were observed during this post-injection monitoring event at MW-27 (310 µg/L), MW-28 (470 µg/L), MW-32 (680 µg/L), MW-39 (64 µg/L) and MW-40 (8.4 µg/L).

4. Monitored Natural Attenuation Monitoring - Downgradient Area

MNA was proposed as part of the long-term Site-wide groundwater remedy, particularly for the Downgradient Area. The monitoring wells sampled for the MNA assessment are shown on Figure 2. The following monitoring wells from each water-bearing unit were included in the semi-annual groundwater monitoring program:

- Saprolite unit - MW-3, MW-4, MW-11, MW-12, MW-14, MW-35, MW-42, and TW-2;
- Shallow bedrock unit - MW-7A, MW-10A, MW-13, and MW-41; and
- Bedrock unit - MW-4A and MW-11A.

4.1 Analytical Results

VOC detections in groundwater for the MNA assessment are summarized in Tables 4A and 4B for the Saprolite and Shallow Bedrock and Bedrock units, respectively and are illustrated on Figures 5A through 5D.

Within the saprolite unit, concentrations of parent compounds and their degradation products have shown a decrease in multiple monitoring wells since the February 2011 sampling event. Concentrations of PCE have decreased approximately 55% in MW-11 and MW-42, and concentrations of TCE decreased at MW-12, MW-35, and MW-42 since the Baseline Sampling; the highest TCE reduction (approximately 87%) was seen at MW-12. Concentrations of cis-1,2-DCE decreased at MW-12, MW-35 and MW-42 since February 2011, with the highest drop (more than 90%) seen at MW-12.

General observations show that concentrations tend to decrease along the groundwater flow path between MW-12 (north) and MW-4 (south) with the exception of MW-42. Concentrations reported in MW-42 remain elevated as compared to the up and down gradient monitoring wells. These concentrations are consistent with historical data, and may be due to a localized historic release; however any impacts remain very limited.

In the Shallow Bedrock, concentrations of select COCs (PCE, TCE and cis-1,2-DCE) reported at MW-13 and MW-41 were generally similar to prior results showing a downward trend. Concentrations decrease along the groundwater flow path in the shallow bedrock from MW-13 to MW-10A. The decrease in the COCs at MW-13 without a corresponding increase in the downgradient well MW-10A is evidence that natural attenuation via biodegradation is on-going at the Site.

In the bedrock, concentrations of COCs have generally stayed the same in MW-4A and MW-11A. Concentrations furthest downgradient at MW-4A were generally below detection limits with few exceptions, indicating that concentrations are decreasing along the groundwater flow path.

The overall redox (ORP) data at the wells sampled indicate that there is an oxidizing condition in all three aquifer units. The presence of methane, a product of biodegradation, in select monitoring wells (MW-3, MW-7A, MW-10A, MW-11, and TW-2) indicates that natural conditions may be reducing in the area. The highest methane concentration was reported at MW-7A (3600 µg/L).

Concentrations of total organic carbon (TOC) in the source area groundwater, which serves as the substrate (food source) for the microbes, is at or below 5 mg/L and TOC in the background wells in the saprolite are slightly conducive (above 1 mg/L). These values are generally lower than the 20 mg/L that the EPA recommends for robust biodegradation, but still contribute to the biodegradation process.

The results of this natural attenuation evaluation indicate that biodegradation of COCs is on-going and that natural attenuation processes at the Site are limiting the downgradient migration of COCs. However, the ability of the local microbial population to degrade the COCs may be limited by the available organic carbon in the groundwater at the Site. Further monitoring will continue to determine the rate of on-going biodegradation of COCs at the Site.

The sample keys, data quality assessment and validation memorandums, and complete analytical data reports for the April 2017 MNA assessment groundwater sampling event are included in Attachment B.

5. SVE System Emission Testing

The most recent emission sampling was conducted on April 28, 2017. During this event, the air sample was collected and analyzed from the combined flow from all 40 SVE wells. The sample was collected from the sample port located prior to the granular-activated carbon (GAC) units at a flow rate of approximately 370 standard cubic feet per minute (scfm). A figure illustrating the location of the wells and the associated well headers is provided as Figure 6.

The air sample was collected in a six liter Summa canister which was provided by Pace Analytical Services (PACE). The sample was analyzed for volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The average hourly and monthly emission rates for VOCs and HAPs were calculated using the flow rate and the analytical result for each analyte. The emission rates were calculated for each detected analyte and the averages were summed over the entire list of detected VOCs and HAPs to obtain an average total emission rate based on each sample. Attachment D shows the calculations for the April 2017 event. The laboratory report is provided as Attachment E.

The estimated average emission rates of VOCs and HAPs from all headers for this and the last three semi-annual sampling events are summarized below:

	October 27, 2015 Pre-Carbon Treatment	April 11, 2016 Pre-Carbon Treatment	October 18, 2016 Pre-Carbon Treatment	April 28, 2017 Pre-Carbon Treatment
Lbs VOCs/hr	0.024	0.010	0.032 [2]	0.031
Lbs HAPs/hr	0.005	0.007	0.008	0.008

In general, emission rates of VOCs and HAPs have stabilized and remain similar to the previous events. The emission rates since October 2010 are presented on the graph provided as Figure 7 to show the trends with time.

GHD anticipates further reductions may be achievable and will continue operation of the SVE system utilizing flow from all 40 SVE wells. During the next sampling event, the air sample will be collected after the system runs for at least 24 hours after purging the condensate from the traps, if any, and system start-up. On/off cycling of the SVE system may be considered to improve recovery if the current recovery rate remains stable. Pursuant to the O&M plan, the next sampling event is tentatively scheduled to coincide with the semi-annual groundwater monitoring event.

[2] THC as Gas was inadvertently left out of the analysis list for TO-15 in the April 2016 sample

The next round of ISCO and MNA groundwater monitoring and SVE emission testing is scheduled for October 2017.

Please contact the undersigned at (678) 280-2140 if you have any questions or comments regarding the above.

Sincerely,

GHD

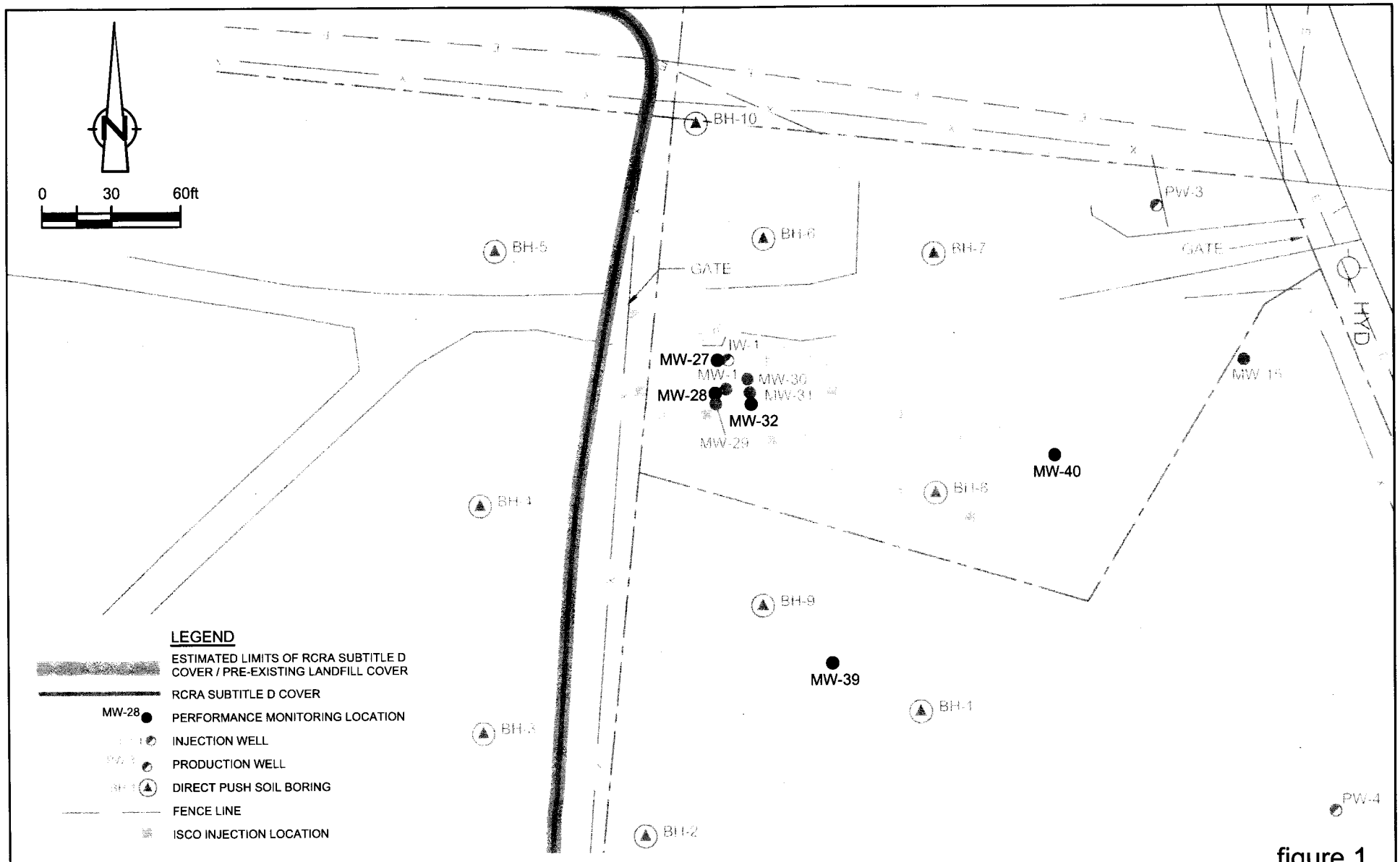
Terefe Mazengia, PG

R. T. (Bob) Pyle

TM/tb/173
Encl.

cc: Joel Padgett, SCDHEC
Dave Roberson, de maximis
Amy Magee, King & Spalding

Figures



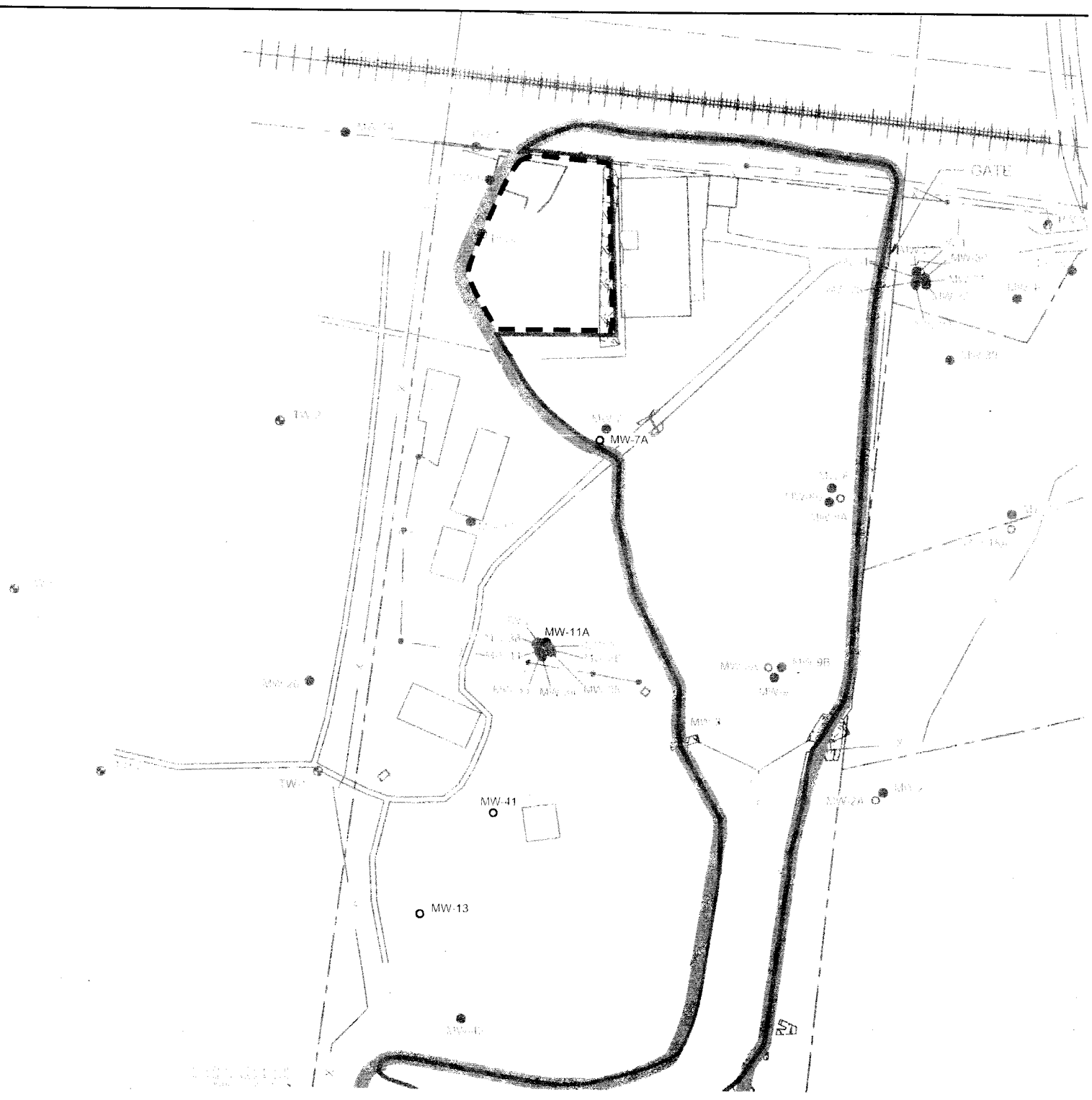
NOTE:
1. THE LOCATION OF INJECTION POINTS IS APPROXIMATE.
2. GROUNDWATER MONITORING SAMPLES COLLECTED FROM MONITORING WELL LOCATIONS: MW-27, MW-28, MW-32, MW-39, AND MW-40.

SOURCE: TRIAD SURVEYORS, INC. BOUNDARY SURVEY DATED 10/31/2011.

figure 1

POST INJECTION AND MONITORING LOCATIONS
AQUA-TECH ENVIRONMENTAL, INC.
Greer, South Carolina

13926-25(JONE173)GN-WA001 MAY 19, 2017


GATE
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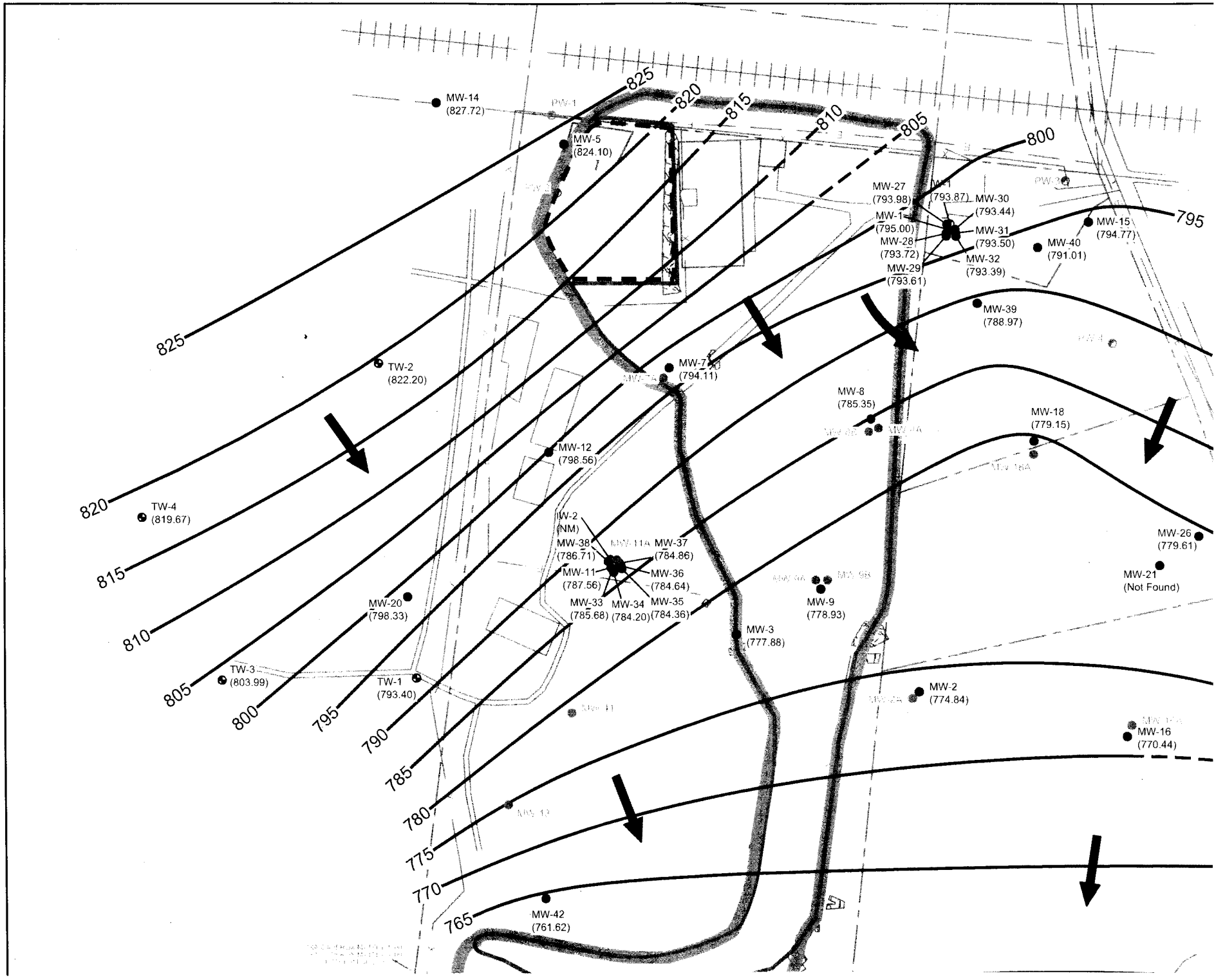
MW-11A
MW-41
MW-13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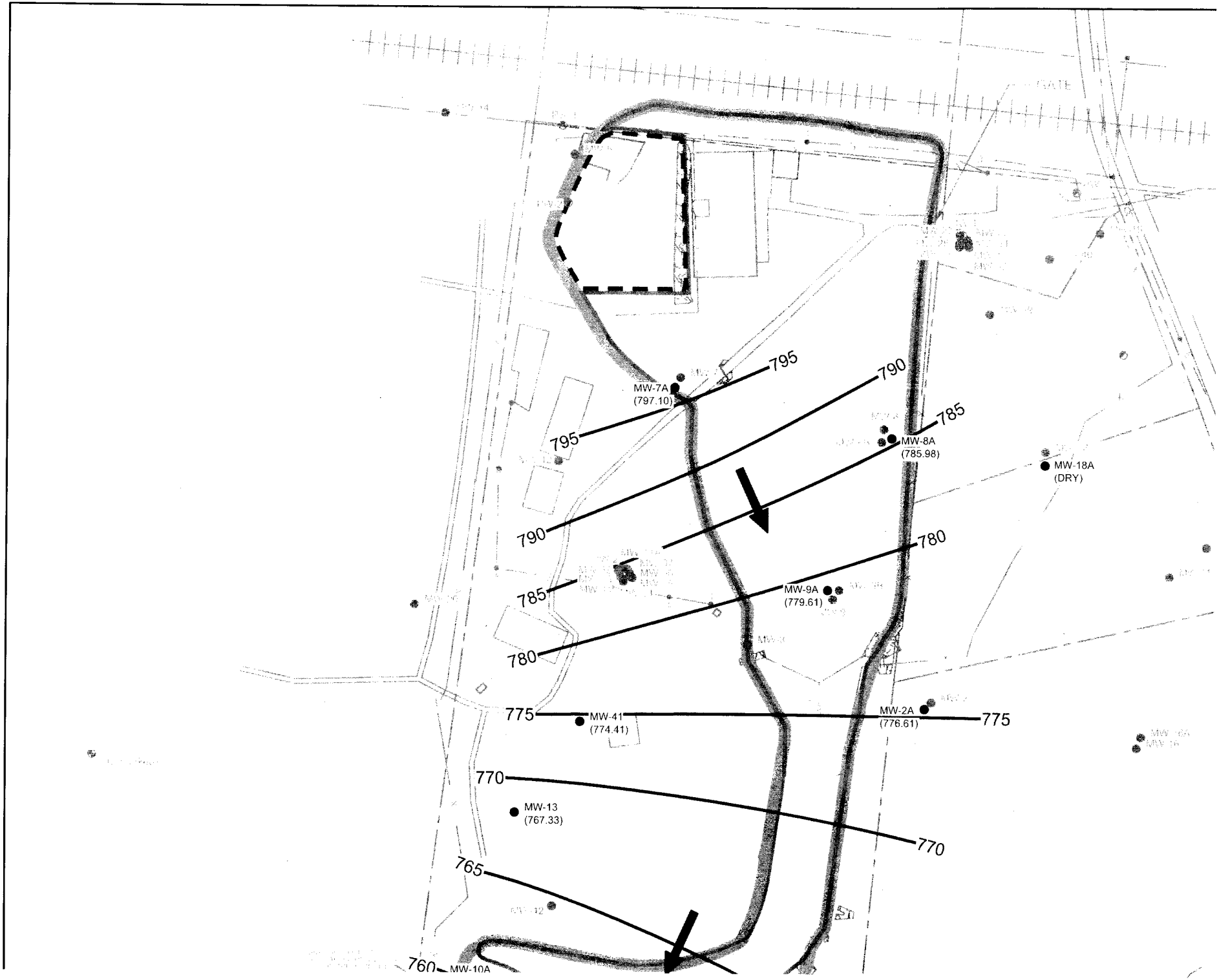
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GATE
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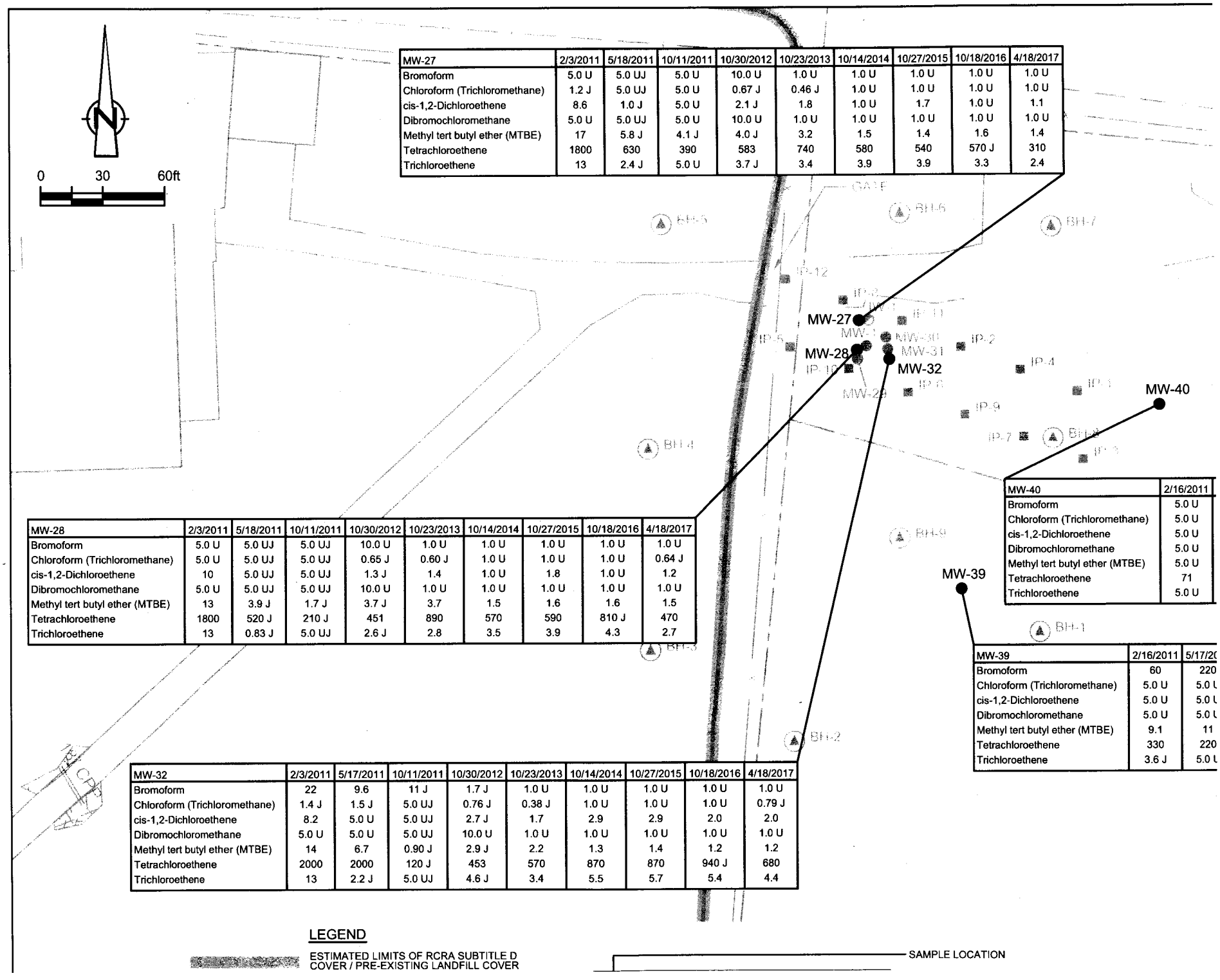


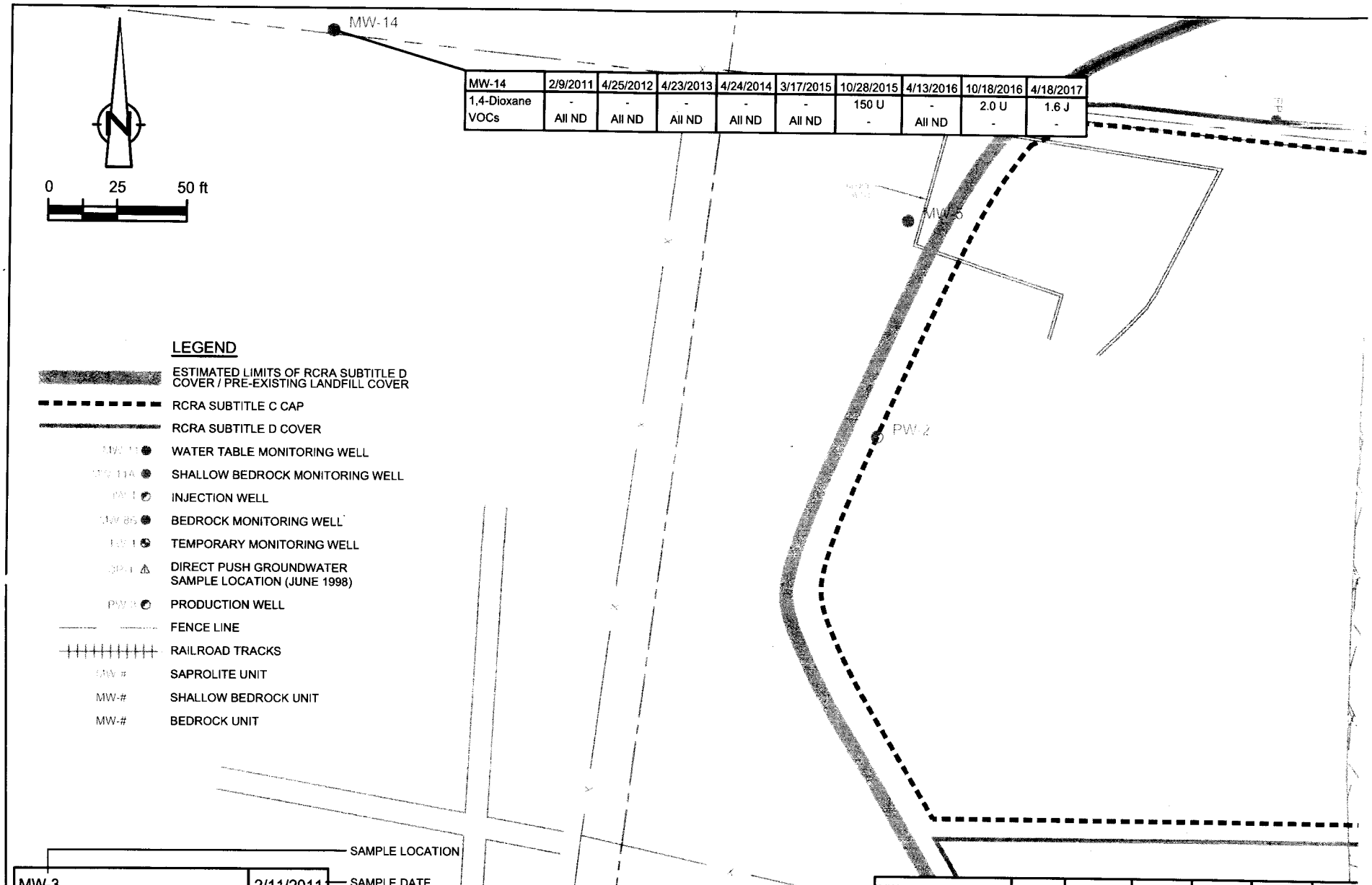
MW-27	2/3/2011	5/18/2011	10/11/2011	10/30/2012	10/23/2013	10/14/2014	10/27/2015	10/18/2016	4/18/2017
Bromoform	5.0 U	5.0 UJ	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	1.2 J	5.0 UJ	5.0 U	0.67 J	0.46 J	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	8.6	1.0 J	5.0 U	2.1 J	1.8	1.0 U	1.7	1.0 U	1.1
Dibromochloromethane	5.0 U	5.0 UJ	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	17	5.8 J	4.1 J	4.0 J	3.2	1.5	1.4	1.6	1.4
Tetrachloroethene	1800	630	390	583	740	580	540	570 J	310
Trichloroethene	13	2.4 J	5.0 U	3.7 J	3.4	3.9	3.9	3.3	2.4

MW-28	2/3/2011	5/18/2011	10/11/2011	10/30/2012	10/23/2013	10/14/2014	10/27/2015	10/18/2016	4/18/2017
Bromoform	5.0 U	5.0 UJ	5.0 UJ	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	5.0 U	5.0 UJ	5.0 UJ	0.65 J	0.60 J	1.0 U	1.0 U	1.0 U	0.64 J
cis-1,2-Dichloroethene	10	5.0 UJ	5.0 UJ	1.3 J	1.4	1.0 U	1.8	1.0 U	1.2
Dibromochloromethane	5.0 U	5.0 UJ	5.0 UJ	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	13	3.9 J	1.7 J	3.7 J	3.7	1.5	1.6	1.6	1.5
Tetrachloroethene	1800	520 J	210 J	451	890	570	590	810 J	470
Trichloroethene	13	0.83 J	5.0 UJ	2.6 J	2.8	3.5	3.9	4.3	2.7

MW-40	2/16/2011
Bromoform	5.0 U
Chloroform (Trichloromethane)	5.0 U
cis-1,2-Dichloroethene	5.0 U
Dibromochloromethane	5.0 U
Methyl tert butyl ether (MTBE)	5.0 U
Tetrachloroethene	71
Trichloroethene	5.0 U

MW-39	2/16/2011	5/17/20
Bromoform	60	220
Chloroform (Trichloromethane)	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	9.1	11
Tetrachloroethene	330	220
Trichloroethene	3.6 J	5.0 U

MW-32	2/3/2011	5/17/2011	10/11/2011	10/30/2012	10/23/2013	10/14/2014	10/27/2015	10/18/2016	4/18/2017
Bromoform	22	9.6	11 J	1.7 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	1.4 J	1.5 J	5.0 UJ	0.76 J	0.38 J	1.0 U	1.0 U	1.0 U	0.79 J
cis-1,2-Dichloroethene	8.2	5.0 U	5.0 UJ	2.7 J	1.7	2.9	2.9	2.0	2.0
Dibromochloromethane	5.0 U	5.0 U	5.0 UJ	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	14	6.7	0.90 J	2.9 J	2.2	1.3	1.4	1.2	1.2
Tetrachloroethene	2000	2000	120 J	453	570	870	870	940 J	680
Trichloroethene	13	2.2 J	5.0 UJ	4.6 J	3.4	5.5	5.7	5.4	4.4



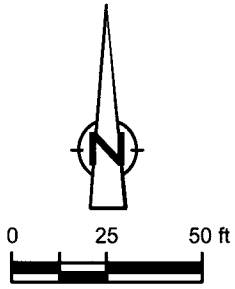
MW-14	2/9/2011	4/25/2012	4/23/2013	4/24/2014	3/17/2015	10/28/2015	4/13/2016	10/18/2016	4/18/2017
1,4-Dioxane	-	-	-	-	-	150 U	-	2.0 U	1.6 J
VOCs	All ND	All ND	All ND	All ND	All ND	-	All ND	-	-

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER

MW-7A	2/2/2011	10/11/2011	4/24/2012	4/22/2013	4/23/2014	3/18/20
1,1-Dichloroethane	5.0 U	5.0 U	0.83 J	7.3 J	5.7	2.3
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	0.78 J	2.0 U	2.0 U
1,2,4-Trimethylbenzene	5.0 U	5.0 U	5.0 U	0.57 J	1.0 U	1.0 U
1,2-Dichloroethane	5.0 U	5.0 U	0.48 J	0.74 J	1.0 U	1.0 U
1,4-Dioxane	-	-	-	-	-	-
Acetone	17 J	11 J	5.8 J	25.0 U	20 U	31
Benzene	5.0 U	5.0 U	5.0 U	2.1 J	1.4	0.62 J
Chlorobenzene	5.0 U	5.0 U	5.0 U	0.31 J	1.0 U	1.0 U
cis-1,2-Dichloroethene	16	15	30	161	120	2.5
Methylene chloride	5.0 U	5.0 U	5.0 U	1.4 J	5.0 U	5.0 U
o-Xylene	-	-	-	0.27 J	-	-
Tetrachloroethene	14	1.8 J	2.1 J	9.8 J	9.5	1.0 U

TW-2	2/9/2011	10/13/2011	4/25/2012	4/23/2013	4/24/2014	3/17/2015	10/28/2015	4/13/2016	10/18/2016	4/18/2017



LEGEND

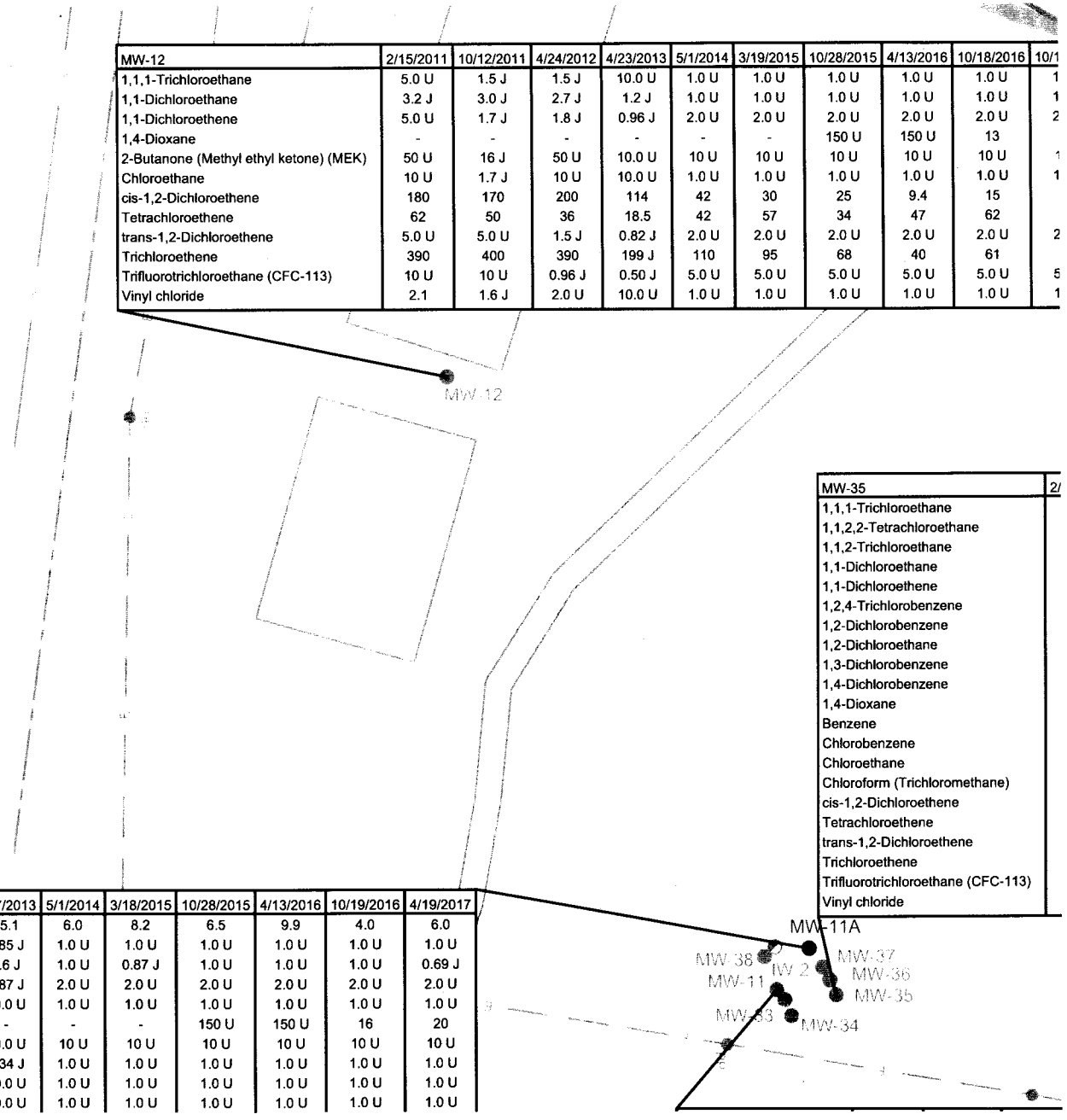
- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
- WATER TABLE MONITORING WELL
- SHALLOW BEDROCK MONITORING WELL
- INJECTION WELL
- BEDROCK MONITORING WELL
- TEMPORARY MONITORING WELL
- DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER

MW-12	2/15/2011	10/12/2011	4/24/2012	4/23/2013	5/1/2014	3/19/2015	10/28/2015	4/13/2016	10/18/2016	10/1
1,1,1-Trichloroethane	5.0 U	1.5 J	1.5 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1
1,1-Dichloroethane	3.2 J	3.0 J	2.7 J	1.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1
1,1-Dichloroethene	5.0 U	1.7 J	1.8 J	0.96 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2
1,4-Dioxane	-	-	-	-	-	-	150 U	150 U	13	
2-Butanone (Methyl ethyl ketone) (MEK)	50 U	16 J	50 U	10.0 U	10 U	10 U	10 U	10 U	10 U	1
Chloroethane	10 U	1.7 J	10 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1
cis-1,2-Dichloroethene	180	170	200	114	42	30	25	9.4	15	
Tetrachloroethene	62	50	36	18.5	42	57	34	47	62	
trans-1,2-Dichloroethene	5.0 U	5.0 U	1.5 J	0.82 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2
Trichloroethene	390	400	390	199 J	110	95	68	40	61	
Trifluorotrichloroethane (CFC-113)	10 U	10 U	0.96 J	0.50 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5
Vinyl chloride	2.1	1.6 J	2.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1

MW-35	2/
1,1,1-Trichloroethane	
1,1,2,2-Tetrachloroethane	
1,1,2-Trichloroethane	
1,1-Dichloroethane	
1,1-Dichloroethene	
1,2,4-Trichlorobenzene	
1,2-Dichlorobenzene	
1,2-Dichloroethane	
1,3-Dichlorobenzene	
1,4-Dichlorobenzene	
1,4-Dioxane	
Benzene	
Chlorobenzene	
Chloroethane	
Chloroform (Trichloromethane)	
cis-1,2-Dichloroethene	
Tetrachloroethene	
trans-1,2-Dichloroethene	
Trichloroethene	
Trifluorotrichloroethane (CFC-113)	
Vinyl chloride	



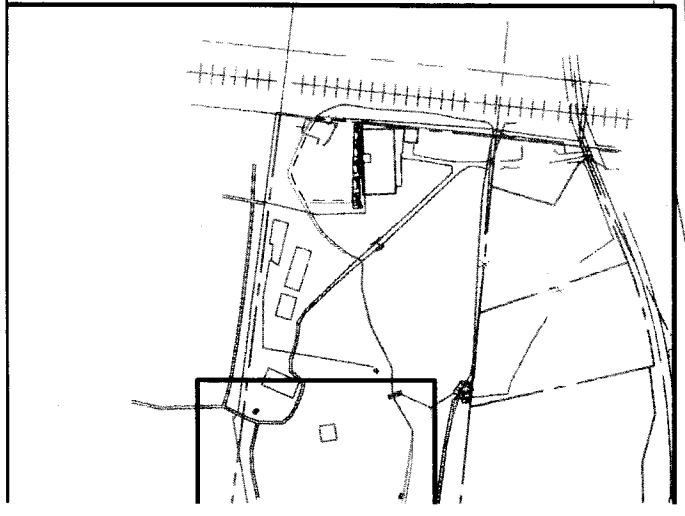
MW-11A	2/10/2011	10/12/2011	4/25/2012	4/17/2013	5/1/2014	3/18/2015	10/28/2015	4/13/2016	10/19/2016	4/19/2017
1,1,2,2-Tetrachloroethane	33	34	31	15.1	6.0	8.2	6.5	9.9	4.0	6.0
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	0.85 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5.3	4.0 J	4.7 J	2.6 J	1.0 U	0.87 J	1.0 U	1.0 U	1.0 U	0.69 J
1,1-Dichloroethene	2.4 J	1.4 J	2.1 J	0.87 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	1.5 J	5.0 U	0.94 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	-	-	-	-	-	-	150 U	150 U	16	20
2-Butanone (Methyl ethyl ketone) (MEK)	50 U	12 J	50 U	10.0 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	0.65 J	0.67 J	0.60 J	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	0.71 J	5.0 U	5.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	2.3 J	2.6 J	10 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

LEGEND

- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
- MW-11 WATER TABLE MONITORING WELL
- MW-11A SHALLOW BEDROCK MONITORING WELL
- IW-1 INJECTION WELL
- MW-22 BEDROCK MONITORING WELL
- TW-1 TEMPORARY MONITORING WELL
- DP-1 DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PW-1 PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- MW-# SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER



MW-41

MW-41	2/11/2011	10/12/2011	4/25/2012	4/18/2013	4/23/2014	3/17/2015	3/17/2015	10/27/2015	4/12/2016	10/18/2016	4/18/2017
1,1,1-Trichloroethane	3.5 J	5.0 U	2.5 J	1.5 J	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.66 J
1,1,2,2-Tetrachloroethane	5.2	3.1 J	4.2 J	3.9 J	2.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.96 J
1,1-Dichloroethane	1.8 J	5.0 U	1.5 J	1.3 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	6.1	5.0 U	5.7	4.2 J	4.3	1.9 J	2.2	2.0 U	1.4 J	2.0 U	1.6 J
1,2-Dichloroethane	5.9	2.6 J	4.1 J	4.3 J	4.9	1.4	1.4	1.4	1.8	1.0 U	1.4
1,4-Dioxane	-	-	-	-	-	-	-	150 U	150 U	7.1	7.9
Chloroform (Trichloromethane)	5.9	1.4 J	4.5 J	3.8 J	3.6	1.9	2.1	1.6	1.8	1.0 U	1.5
cis-1,2-Dichloroethene	37	9.4	30	34.6	27	3.7	4.0	2.5	2.5	2.1	2.4
Tetrachloroethene	20	4.4 J	26	23.6	28	19	20	15	5.7	9.6	8.2
Toluene	1.0 J	12	5.0 U	10.0 U	1.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	47	8.5	42	42.7	33	12	13	9.5	7.9	8.7	7.5
Trichlorofluoromethane (CFC-11)	2.4 J	5.0 U	1.3 J	1.9 J	2.3	1.3	1.4	1.0 U	1.3	1.0 U	1.5
Trifluorotrichloroethane (CFC-113)	10 U	10 U	10 U	0.45 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

MW-41

MW-3	2/11/
1,1,1-Trichloroethane	9
1,1,2,2-Tetrachloroethane	1
1,1,2-Trichloroethane	5.
1,1-Dichloroethane	6
1,1-Dichloroethene	1
1,2,4-Trichlorobenzene	5.0
1,2-Dichlorobenzene	4.2
1,2-Dichloroethane	6.
1,3-Dichlorobenzene	2.4
1,4-Dichlorobenzene	3.0
1,4-Dioxane	-
2-Butanone (Methyl ethyl ketone) (MEK)	50
Benzene	1
Chlorobenzene	1
Chloroethane	5.6
Chloroform (Trichloromethane)	7.
cis-1,2-Dichloroethene	31
Cyclohexane	5.0
Isopropyl benzene	5.0
Methylene chloride	5.0
o-Xylene	-
Tetrachloroethene	17
Toluene	5.0
trans-1,2-Dichloroethene	5.
Trichloroethene	4
Vinyl chloride	9
Xylenes (total)	5.0

MW-13

MW-13	2/9/2011	10/12/2011	10/12/2011	4/26/2012	4/18/2013	4/24/2014	3/18/2015	10/28/20
1,1,1-Trichloroethane	1.4 J	1.6 J	1.7 J	0.70 J	1.1 J	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	12	11	10	7.1	7.9 J	5.7	5.8	7.0
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	0.61 J	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	15	30	30	11	16.4	7.5	3.8	10
1,1-Dichloroethene	13	28	29	5.3	12.6	5.0	2.4	8.0
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	0.32 J	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.88 J	1.9 J	1.9 J	0.63 J	1.1 J	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	5.0 U	0.99 J	1.0 J	5.0 U	0.54 J	1.0 U	1.0 U	1.0 U
1,4-Dioxane	-	-	-	-	-	-	-	120 J
Acetone	50 U	50 U	50 U	17 J	25.0 U	20 U	20 U	20 U
Benzene	1.6 J	7.0	6.8	1.1 J	2.1 J	1.0 U	1.0 U	1.0 U
Chlorobenzene	5.0 U	0.55 J	5.0 U	5.0 U	0.28 J	1.0 U	1.0 U	1.0 U
Chloroethane	10 U	10 U	10 U	1.3 J	10.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	5.4	7.9	8.1	3.7 J	5.4 J	2.8	1.9	2.9
cis-1,2-Dichloroethene	270	350	320	170	243	170	110	180
Methyl cyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	2.7 J	2.0 U	2.0 U	2.0 U
Methylene chloride	5.0 U	2.2 J	2.2 J	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U

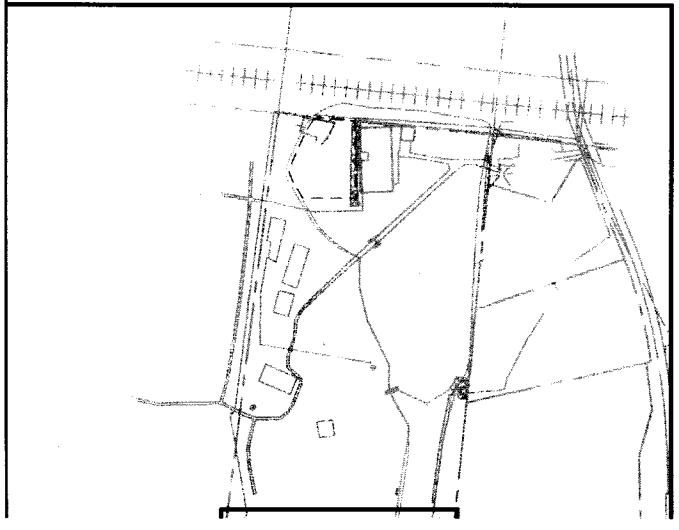
MW-13

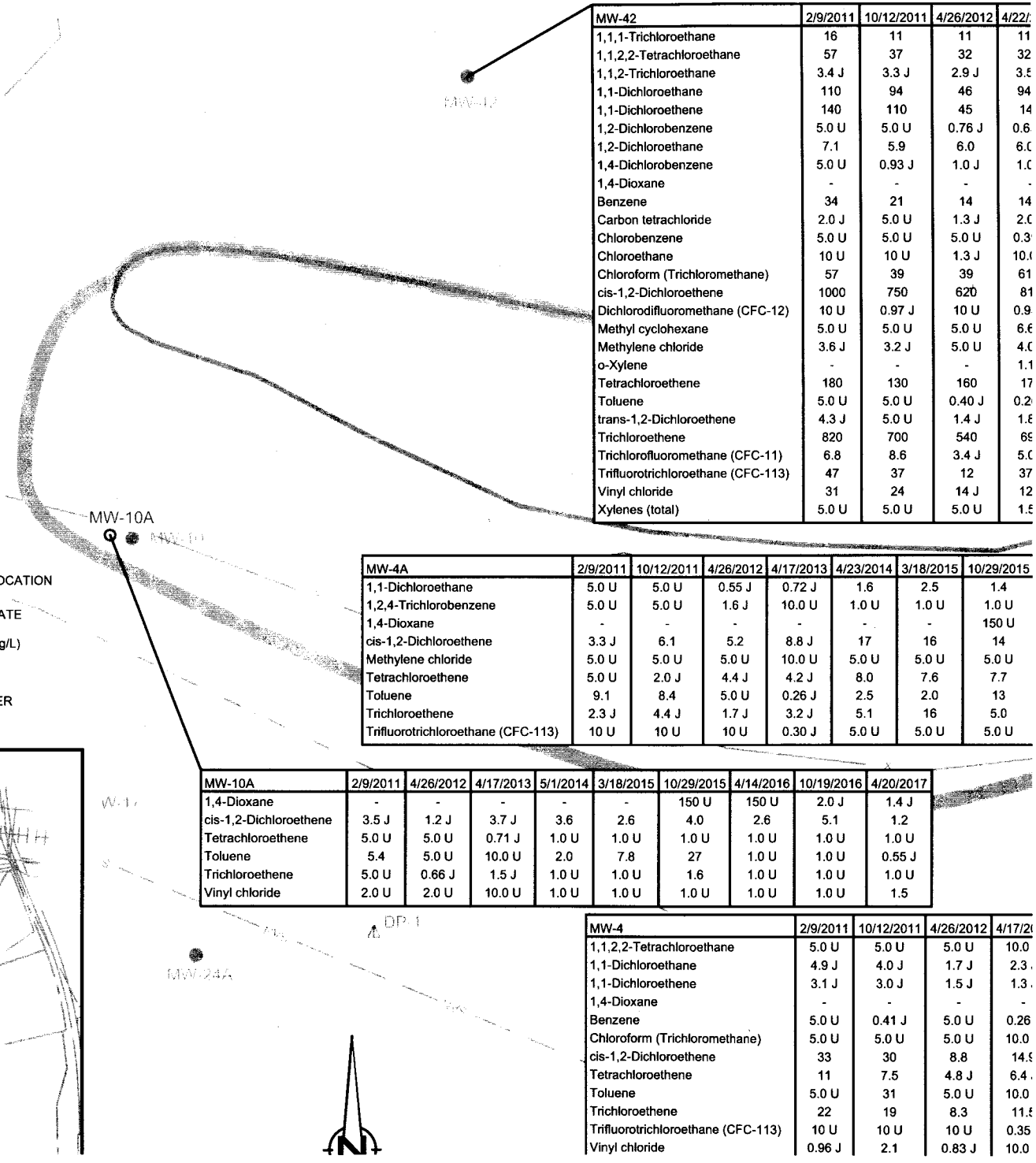
LEGEND

- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
- WATER TABLE MONITORING WELL
- SHALLOW BEDROCK MONITORING WELL
- INJECTION WELL
- BEDROCK MONITORING WELL
- TEMPORARY MONITORING WELL
- DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER





MW-42	2/9/2011	10/12/2011	4/26/2012	4/22/
1,1,1-Trichloroethane	16	11	11	11
1,1,2,2-Tetrachloroethane	57	37	32	32
1,1,2-Trichloroethane	3.4 J	3.3 J	2.9 J	3.5
1,1-Dichloroethane	110	94	46	94
1,1-Dichloroethene	140	110	45	14
1,2-Dichlorobenzene	5.0 U	5.0 U	0.76 J	0.6
1,2-Dichloroethane	7.1	5.9	6.0	6.0
1,4-Dichlorobenzene	5.0 U	0.93 J	1.0 J	1.0
1,4-Dioxane	-	-	-	-
Benzene	34	21	14	14
Carbon tetrachloride	2.0 J	5.0 U	1.3 J	2.0
Chlorobenzene	5.0 U	5.0 U	5.0 U	0.3
Chloroethane	10 U	10 U	1.3 J	10.
Chloroform (Trichloromethane)	57	39	39	61
cis-1,2-Dichloroethene	1000	750	620	81
Dichlorodifluoromethane (CFC-12)	10 U	0.97 J	10 U	0.9
Methyl cyclohexane	5.0 U	5.0 U	5.0 U	6.6
Methylene chloride	3.6 J	3.2 J	5.0 U	4.0
o-Xylene	-	-	-	1.1
Tetrachloroethene	180	130	160	17
Toluene	5.0 U	5.0 U	0.40 J	0.2
trans-1,2-Dichloroethene	4.3 J	5.0 U	1.4 J	1.8
Trichloroethene	820	700	540	69
Trichlorofluoromethane (CFC-11)	6.8	8.6	3.4 J	5.0
Trifluorotrichloroethane (CFC-113)	47	37	12	37
Vinyl chloride	31	24	14 J	12
Xylenes (total)	5.0 U	5.0 U	5.0 U	1.5

MW-4A	2/9/2011	10/12/2011	4/26/2012	4/17/2013	4/23/2014	3/18/2015	10/29/2015
1,1-Dichloroethane	5.0 U	5.0 U	0.55 J	0.72 J	1.6	2.5	1.4
1,2,4-Trichlorobenzene	5.0 U	5.0 U	1.6 J	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	-	-	-	-	-	-	150 U
cis-1,2-Dichloroethene	3.3 J	6.1	5.2	8.8 J	17	16	14
Methylene chloride	5.0 U	5.0 U	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	2.0 J	4.4 J	4.2 J	8.0	7.6	7.7
Toluene	9.1	8.4	5.0 U	0.26 J	2.5	2.0	13
Trichloroethene	2.3 J	4.4 J	1.7 J	3.2 J	5.1	16	5.0
Trifluorotrichloroethane (CFC-113)	10 U	10 U	10 U	0.30 J	5.0 U	5.0 U	5.0 U

MW-10A	2/9/2011	4/26/2012	4/17/2013	5/1/2014	3/18/2015	10/29/2015	4/14/2016	10/19/2016	4/20/2017
1,4-Dioxane	-	-	-	-	-	150 U	150 U	2.0 J	1.4 J
cis-1,2-Dichloroethene	3.5 J	1.2 J	3.7 J	3.6	2.6	4.0	2.6	5.1	1.2
Tetrachloroethene	5.0 U	5.0 U	0.71 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5.4	5.0 U	10.0 U	2.0	7.8	27	1.0 U	1.0 U	0.55 J
Trichloroethene	5.0 U	0.66 J	1.5 J	1.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U
Vinyl chloride	2.0 U	2.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5

MW-4	2/9/2011	10/12/2011	4/26/2012	4/17/2
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	10.0
1,1-Dichloroethane	4.9 J	4.0 J	1.7 J	2.3
1,1-Dichloroethene	3.1 J	3.0 J	1.5 J	1.3
1,4-Dioxane	-	-	-	-
Benzene	5.0 U	0.41 J	5.0 U	0.26
Chloroform (Trichloromethane)	5.0 U	5.0 U	5.0 U	10.0
cis-1,2-Dichloroethene	33	30	8.8	14.9
Tetrachloroethene	11	7.5	4.8 J	6.4
Toluene	5.0 U	31	5.0 U	10.0
Trichloroethene	22	19	8.3	11.5
Trifluorotrichloroethane (CFC-113)	10 U	10 U	10 U	0.35
Vinyl chloride	0.96 J	2.1	0.83 J	10.0

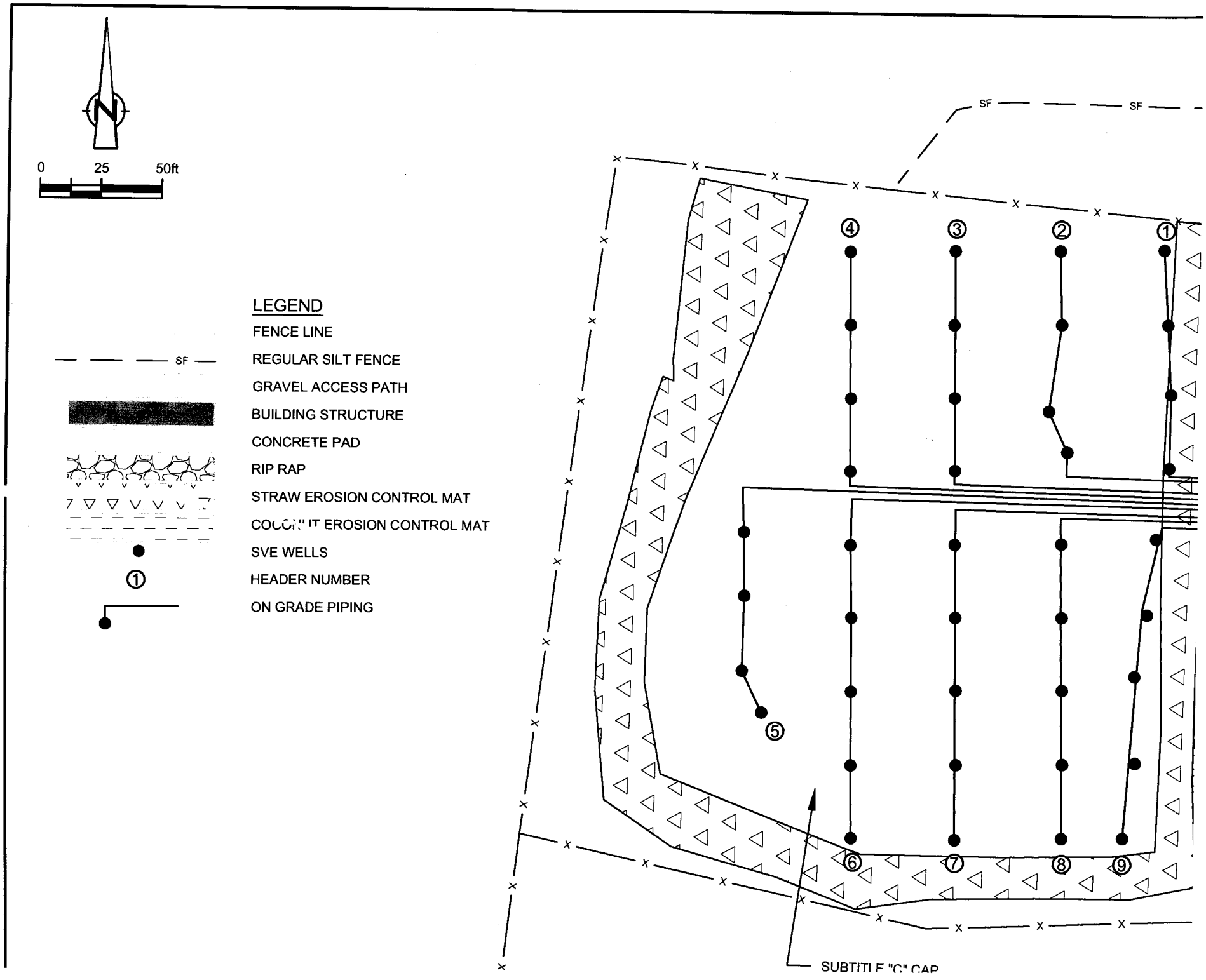
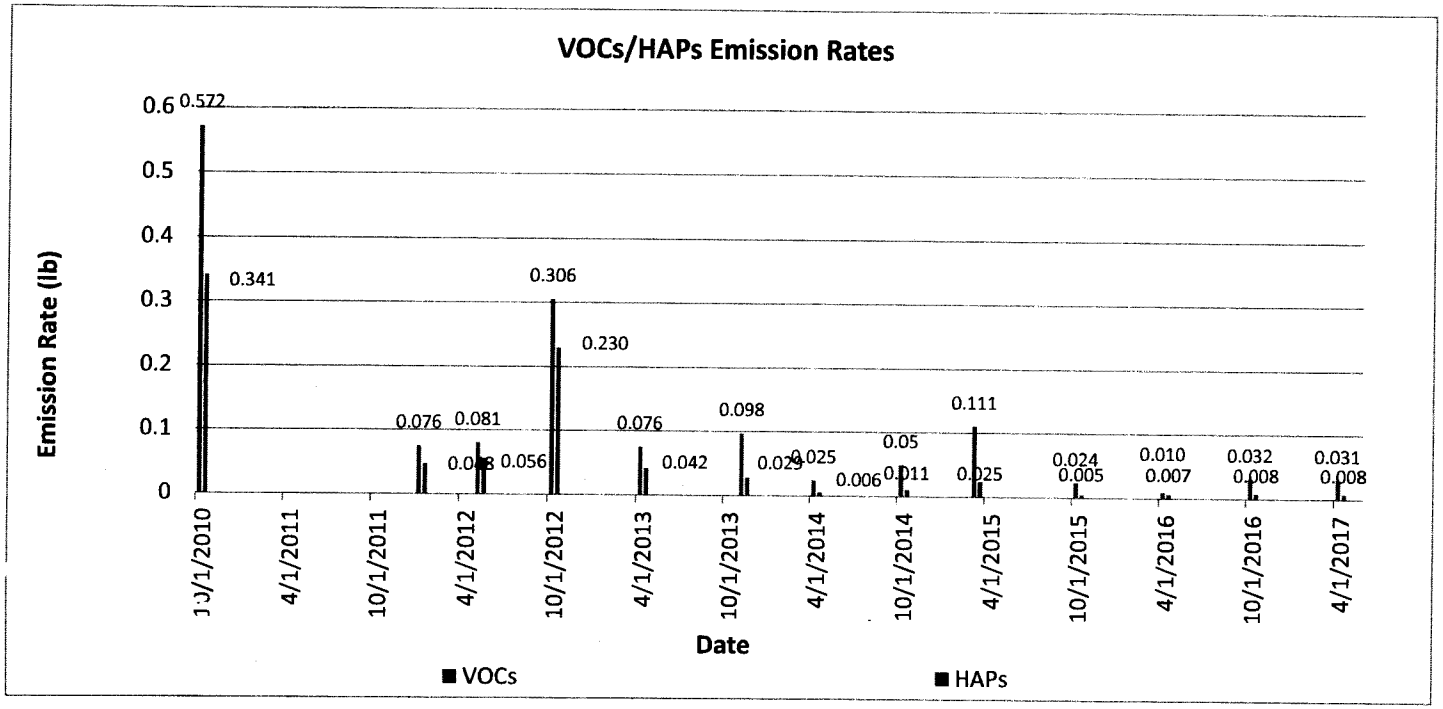

N
0
25
50ft
LEGEND
FENCE LINE
SF
REGULAR SILT FENCE
GRAVEL ACCESS PATH
BUILDING STRUCTURE
CONCRETE PAD
RIP RAP
STRAW EROSION CONTROL MAT
COCONUT EROSION CONTROL MAT
SVE WELLS
HEADER NUMBER
ON GRADE PIPING
SF
SF
1
2
3
4
5
6
7
8
9
SUBTITLE "C" CAP

Figure 7



Note:
All samples were collected pre-carbon except the October 2010 sample which was collected post-carbon filter
THC as gas was inadvertently left out of the analysis list during the April 2016 event.

Tables

Table 1

Groundwater Elevations
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Well	Unit	Reference Elevation	Depth to Groundwater (feet bTOC)	Groundwater Elevation (feet AMSL)
			April 17, 2017	
MW-1	Saprolite	832.82	37.82	
MW-2	Saprolite	806.46	31.62	
MW-2A	Shallow Bedrock	805.94	29.33	
MW-3	Saprolite	821.18	43.30	
MW-4	Saprolite	772.19	15.13	
MW-4A	Bedrock	769.40	12.10	
MW-5	Saprolite	845.93	21.83	
MW-6	Saprolite	769.94	11.55	
MW-6A	Bedrock	770.15		Damaged
MW-7	Saprolite	826.01	31.90	
MW-7A	Shallow Bedrock	826.03	28.93	
MW-8	Saprolite	812.39	27.04	
MW-8A	Shallow Bedrock	812.36	26.38	
MW-8B	Bedrock	812.31	23.65	
MW-9	Saprolite	806.19	27.26	
MW-9A	Shallow Bedrock	806.68	27.07	
MW-9B	Bedrock	805.73	27.34	
MW-10	Saprolite	768.22		Damaged
MW-10A	Shallow Bedrock	768.09	9.05	
MW-11	Saprolite	827.96	40.40	
MW-11A	Bedrock	827.33	34.35	
MW-12	Saprolite	832.55	33.99	
MW-13	Shallow Bedrock	828.91	61.58	
MW-14 (2)	Saprolite	873.42	45.70	
MW-15	Saprolite	837.68	42.91	
MW-16	Saprolite	801.39	30.95	
MW-16A	Bedrock	800.85	29.52	
MW-17	Saprolite	768.73		Not Found
MW-18	Saprolite	827.95	48.80	
MW-18A	Shallow Bedrock	827.86	DRY	
MW-19	Saprolite	763.12	6.24	
MW-20	Saprolite	864.24	65.91	
MW-21	Saprolite	812.48		Damaged
MW-22	Saprolite	764.00	7.51	
MW-23	Saprolite	762.91	10.00	
MW-23A	Bedrock	763.64	7.31	
MW-24	Saprolite	772.25	15.63	
MW-24A	Bedrock	771.38	11.02	
MW-25	Shallow Bedrock	771.68	9.26	
MW-26	Saprolite	813.22	33.61	
MW-27	Saprolite	831.09	37.11	
MW-28	Saprolite	831.04	37.32	
MW-29	Saprolite	830.50	36.89	
MW-30	Saprolite	832.08	38.64	
MW-31	Saprolite	831.77	38.27	
MW-32	Saprolite	831.45	38.06	
MW-33	Saprolite	827.14	41.46	
MW-34	Saprolite	827.00	42.80	
MW-35	Saprolite	825.65	41.29	
MW-36	Saprolite	825.70	41.06	
MW-37	Saprolite	825.76	40.90	
MW-38	Saprolite	826.89	40.18	
MW-39	Saprolite	828.51	39.54	
MW-40	Saprolite	835.78	44.77	
MW-41	Shallow Bedrock	849.20	74.79	
MW-42	Saprolite	805.98	44.36	
TW-1	Saprolite	857.44	64.04	
TW-2	Saprolite	870.16	47.96	
TW-3	Saprolite	863.50	59.51	
TW-4	Saprolite	865.66	45.99	
IW-1	Saprolite	829.27	35.40	
IW-2	Saprolite	824.44	NM	

Notes:
AMSL- Above Mean Sea Level
bTOC- Elevations are reported relative to NGVD

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Location ID:		MW-27	MW-27	MW-27	MW-27	MW-27	MW-28	MW-
Sample Name:		GW-020311-SAG-105	GW-051811-DJB-005	GW-013926-041216-SAG-101	GW-013926-101816-SAG-003	GW-013926-041817-SAG-001	GW-020311-SAG-107	GW-051811-
Sample Date:		2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	2/3/2011	5/18/2
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	Pre-injection	1st Post-i
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,1-Dichloroethene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	5.0 U	R
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,2,4-Trimethylbenzene	ug/L	-	-	-	1.0 U	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	0.020 U	0.020 U	0.020 U	5.0 U	5.0 L
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,3,5-Trimethylbenzene	ug/L	-	-	-	1.0 U	-	-	-
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,4-Dichlorobenzene	ug/L	5.0 U	0.53 J	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
1,4-Dioxane	ug/L			150 U	2.0 U	1.0 J		
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	10 U	10 U	10 U	50 U	50 U
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	13 J	50 UJ	20 U	20 U	20 U	50 U	2.9
Benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 L
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	5.0 U	5.0 L
Chlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Chloroethane	ug/L	10 U	10 UJ	1.0 U	1.0 U	1.0 U	10 U	10 U
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	1.0 U	1.0 U	1.0 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	8.6	1.0 J	1.0 U	1.0 U	1.1	10	5.0 L
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	5.0 U	5.0 L
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	1.0 U	1.0 U	1.0 U	10 U	10 U
Ethylbenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Methyl acetate	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	5.0 U	5.0 L
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	5.0 U	5.0 L
Methyl tert butyl ether (MTBE)	ug/L	17	5.8 J	1.3	1.6	1.4	13	3.9
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 L
Styrene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Tetrachloroethene	ug/L	**1800**	**630**	**600**	**570 J**	**310**	**1800**	520
Toluene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	R
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	5.0 U	5.0 L
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	5.0 U	5.0 L
Trichloroethene	ug/L	**13**	2.4 J	**2.6**	**3.3**	**2.4**	**13**	0.83
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 UJ	5.0 U	5.0 U	5.0 U	10 U	10 U
Volatile Organic Compounds continued								
Vinyl chloride	ug/L	2.0 U	2.0 UJ	1.0 U	1.0 U	1.0 U	2.0 U	2.0 L
Xylenes (total)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	5.0 L

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27	MW-27	MW-28	MW-.
	Sample Name:	GW-020311-SAG-105	GW-051811-DJB-005	GW-013926-041216-SAG-101	GW-013926-101816-SAG-003	GW-013926-041817-SAG-001	GW-020311-SAG-107	GW-051811-
	Sample Date:	2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	2/3/2011	5/18/2
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	Pre-injection	1st Post-ir
Parameters	**Units**							
Metals (Totals)								
Aluminum	mg/L	-	**1.72**	**11.7**	**4.59**	**1**	-	**2.7**
Antimony	mg/L	-	0.0053 J	0.000327 J	0.000256 J	0.000363 J	-	0.020
Arsenic	mg/L	0.0500 U	0.0500 U	0.00596	0.00405 J	0.00361 J	0.0500 U	0.050
Barium	mg/L	0.314	0.284	0.388	0.179	0.112	0.240	0.83
Beryllium	mg/L	-	0.0007 J	0.000763 J	0.000337 J	0.000215 J	-	0.001
Cadmium	mg/L	0.0050 U	0.0003 J	0.000535 J	0.000388 J	0.000457 J	0.0050 U	0.000
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-		0.0050 U	-
Calcium	mg/L	-	31.1	1.92	1.49	1.95	-	80.
Chromium	mg/L	0.0094 J	**0.0385**	**0.02**	0.00939	0.00438 J	0.0057 J	**0.01**
Cobalt	mg/L	-	0.0018 J	0.00483 J	0.00216 J	0.00156 J	-	0.002
Copper	mg/L	0.0011 J	0.0100 U	0.00221	0.00201	0.00547	0.0100 U	0.010
Iron	mg/L	**4.26**	**0.781**	**8.85**	**3.58**	**0.238**	**2.37**	**1.4**
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.1 U	0.1 U	0.1 U	0.100 U	0.100
Lead	mg/L	**0.221**	0.0100 U	0.00804	0.00328	0.00056 J	0.0013 J	0.010
Magnesium	mg/L	-	13.7	4.15	1.96	0.822	-	36.
Manganese	mg/L	**0.637**	**0.661**	**0.754**	**0.276**	**0.319**	**0.211**	**0.23**
Manganese (dissolved)	mg/L	**0.515**	**0.490**	0.00204 J	**0.026**	**0.0359**	**0.180**	**0.13**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	-	0.000
Nickel	mg/L	-	0.0018 J	0.0143	0.00613	0.00243 J	-	0.005
Potassium	mg/L	-	8.83	3.88	2.1	1.28	-	8.6
Selenium	mg/L	0.0200 U	0.0200 U	0.000313 J	0.00026 J	0.000392 J	0.0200 U	0.020
Silver	mg/L	-	0.0100 U	0.000033 J	0.000022 J	0.001 U	-	0.010
Sodium	mg/L	-	**395**	**42.6**	**39.6**	**40.5**	-	**16**
Thallium	mg/L	-	0.0200 U	0.000234 J	0.001 U	0.001 U	-	0.020
Vanadium	mg/L	-	0.0016 J	0.0776	0.0566	0.0427	-	0.002
Zinc	mg/L	-	0.0186 J	0.0527	0.014	0.0266	-	0.02
Wet Chemistry								
Ammonia	mg/L	-	0.194 J	0.020 U	0.045	0.033	-	0.200
Nitrate (as N)	mg/L	-	5.41 J	5.8	5.0	4.8	-	3.2
Orthophosphate	mg/L	-	0.0371 J	7.63	6.40	4.87	-	0.0105
Sulfate	mg/L	**7.0**	**377**	**10**	**8.2**	**8.9**	**4.2**	**77.**
Field Parameters								
pH	S.U	4.99	5.02	5.36	5.95	5.91	5.21	4.6
Dissolved Oxygen (DO)	mg/L	1.38	3.97	0.0	5.45	1.17	1.54	1.1
Oxidation-reduction potential (ORP)	mv	377	502	335	309	214	395	53

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Location ID:		MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-39
Sample Name:		GW-020311-EAH-008	GW-051711-DJB-003	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-101816-SAG-002	GW-013926-041817-SAG-003	GW-021611-DJB
Sample Date:		2/3/2011	5/17/2011	4/12/2016	4/12/2016	10/18/2016	4/18/2017	2/16/2011
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	12th Post-injection Duplicate	13th Post-injection	14th Post-injection	Pre-injection
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dioxane	ug/L			150 U	150 U	2.0 U	0.94 J	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U	50 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromoform	ug/L	22	9.6	1.0 U	1.0 U	1.0 U	1.0 U	**60**
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	4.8 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	1.0 U	1.0 U	1.0 U	0.79 J	5.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
cis-1,2-Dichloroethene	ug/L	8.2	5.0 U	1.0 U	1.4	2.0	2.0	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	14	6.7	1.2	0.99 J	1.2	1.2	9.1
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Tetrachloroethene	ug/L	**2000**	**2000**	**950**	**960**	**940 J**	**680**	**330**
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Trichloroethene	ug/L	**13**	2.2 J	4.6	4.4	5.4	4.4	3.6 J
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Volatile Organic Compounds continued								
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-39
	Sample Name:	GW-020311-EAH-008	GW-051711-DJB-003	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-101816-SAG-002	GW-013926-041817-SAG-003	GW-021611-DJB
	Sample Date:	2/3/2011	5/17/2011	4/12/2016	4/12/2016	10/18/2016	4/18/2017	2/16/2011
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	12th Post-injection Duplicate	13th Post-injection	14th Post-injection	Pre-injection
Parameters	**Units**							
Metals (Totals)								
Aluminum	mg/L	-	**7.99**	1.2	1.32	**7.64**	**0.522**	-
Antimony	mg/L	-	0.0024 J	0.00017 J	0.000154 J	0.005 U	0.005 U	-
Arsenic	mg/L	0.0500 U	0.0500 U	0.000532 J	0.000532 J	0.00114 J	0.000511 J	0.0500 U
Barium	mg/L	0.294	0.533	0.0883	0.0947	0.284	0.0899	0.193
Beryllium	mg/L	-	0.0012 J	0.000197 J	0.000221 J	0.00103	0.000176 J	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.0007 U	0.0007 U	0.000221 J	0.0007 U	0.0050 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-		0.0001 J
Calcium	mg/L	-	90.1	2.83	2.58	3	2.85	-
Chromium	mg/L	**0.0427**	**0.0332**	0.00957	0.0107	0.0208	0.00712	0.0008 J
Cobalt	mg/L	-	0.0049 J	0.000848 J	0.000921 J	0.00349 J	0.00112 J	-
Copper	mg/L	0.0071 J	0.0088 J	0.00196 J	0.00148 J	0.00766	0.002 U	0.0010 J
Iron	mg/L	**11.4**	**13.1**	1.77	1.95	**9.85**	**0.559**	-
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.1 U	0.1 U	0.0342 J	0.1 U	-
Lead	mg/L	0.0043 J	0.0053 J	0.0013	0.00136	0.0073	0.00069 J	0.0100 U
Magnesium	mg/L	-	35.3	1.12	1.19	2.36	1.12	-
Manganese	mg/L	**0.175**	**0.143**	0.0178	0.0202	**0.0892**	**0.0229**	-
Manganese (dissolved)	mg/L	**0.0368**	0.0150 U	0.00268 J	0.00421 J	**0.0112**	**0.00865**	-
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00008 J	0.00007 J	0.00020 U	-
Nickel	mg/L	-	0.0083 J	0.00249 J	0.00262 J	0.00709	0.00138 J	-
Potassium	mg/L	-	8.48	1.48	1.56	2.59	1.44	-
Selenium	mg/L	0.0200 U	0.0200 U	0.000638 J	0.000423 J	0.000166 J	0.005 U	0.0200 U
Silver	mg/L	-	0.0100 U	0.000051 J	0.000042 J	0.000162 J	0.001 U	-
Sodium	mg/L	-	**83.9**	**27.5**	**29.1**	**26.5**	**27.3**	-
Thallium	mg/L	-	0.0200 U	0.001 U	0.001 U	0.001 U	0.001 U	-
Vanadium	mg/L	-	0.0324	0.00668	0.0075	0.0258	0.00408 J	-
Zinc	mg/L	-	0.0408	0.0272 J	0.0117 J	0.0182	0.0186	-
Wet Chemistry								
Ammonia	mg/L	-	0.200 U	0.020 U	0.020 U	0.020 U	0.020 U	-
Nitrate (as N)	mg/L	-	2.46	5.4	5.4	4.9	5.3	-
Orthophosphate	mg/L	-	0.0771 J	0.692	0.760	1.43	1.49	-
Sulfate	mg/L	**160**	**84.1**	**9.2**	**10**	**10**	**9.9**	**1.2**
Field Parameters								
pH	S.U	4.98	5.9	-	5.71	5.70	5.61	4.24
Dissolved Oxygen (DO)	mg/L	6.31	4.86	-	4.50	3.14	3.36	5.23
Oxidation-reduction potential (ORP)	mv	363	478	-	195	298	194	328

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Location ID:		MW-40	MW-40	MW-40	MW-40	MW-40	MW-40
Sample Name:		GW-021611-DJB-218	GW-051711-DJB-001	GW-013926-041216-MRB-005	GW-013926-101816-SAG-004	GW-013926-101816-SAG-005	GW-013926-041817-SAG-005
Sample Date:		2/16/2011	5/17/2011	4/12/2016	10/18/2016	10/18/2016	4/18/2017
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	13th Post-injection	14th Post-injection
Parameters	**Units**					Duplicate	
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L			150 U	2.0 U	2.0 U	0.57 J
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	3.2 J	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**71**	**54**	**14**	**15**	**9.9**	**8.4**
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Volatile Organic Compounds continued							
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40
	Sample Name:	GW-021611-DJB-218	GW-051711-DJB-001	GW-013926-041216-MRB-005	GW-013926-101816-SAG-004	GW-013926-101816-SAG-005	GW-013926-041817-SAG-005
	Sample Date:	2/16/2011	5/17/2011	4/12/2016	10/18/2016	10/18/2016	4/18/2017
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	13th Post-injection	14th Post-injection
Parameters	Units					Duplicate	
Metals (Totals)							
Aluminum	mg/L	-	**6.04**	**0.847**	**0.303**	**0.307**	**0.172**
Antimony	mg/L	-	0.0020 J	0.000255 J	0.005 U	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.000206 J	0.005 U	0.005 U	0.000329 J
Barium	mg/L	0.198	0.230	0.182	0.17	0.17	0.176
Beryllium	mg/L	-	0.0005 J	0.000304 J	0.000283 J	0.00031 J	0.000296 J
Cadmium	mg/L	0.0003 J	0.0016 J	0.000602 J	0.000464 J	0.000475 J	0.00101
Cadmium (dissolved)	mg/L	0.0006 J	-	-	-	-	
Calcium	mg/L	-	1.79	1.33	1.13	1.18	1.2
Chromium	mg/L	0.0017 J	0.0018 J	0.000951 J	0.005 U	0.005 U	0.005 U
Cobalt	mg/L	-	0.0401	0.0116	0.00687	0.00685	0.00792
Copper	mg/L	0.0010 J	0.0019 J	0.00184 J	0.000606 J	0.00141 J	0.00252
Iron	mg/L	-	**2.79**	**0.643**	**0.201**	**0.194**	**0.08 J**
Iron (dissolved)	mg/L	-	**0.620**	0.1 U	0.0399 J	0.1 U	0.1 U
Lead	mg/L	0.0100 U	0.0136	0.00297	0.00112	0.00117	0.00116
Magnesium	mg/L	-	3.61	2.41	2.23	2.2	2.27
Manganese	mg/L	-	**1.53**	**0.655**	**0.419**	**0.421**	**0.514**
Manganese (dissolved)	mg/L	-	**1.58**	**0.634**	**0.42**	**0.442**	**0.452**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Nickel	mg/L	-	0.0083 J	0.00555	0.00423 J	0.00425 J	0.0048 J
Potassium	mg/L	-	6.63	4.67	4.27	4.37	4.57
Selenium	mg/L	0.0200 U	0.0044 J	0.000906 J	0.000508 J	0.000572 J	0.000617 J
Silver	mg/L	-	0.0100 U	0.001 U	0.001 U	0.001 U	0.001 U
Sodium	mg/L	-	**8.23**	**6.38**	**5.35**	**5.41**	**6.86**
Thallium	mg/L	-	0.0022 J	0.000631 J	0.000573 J	0.000578 J	0.00051 J
Vanadium	mg/L	-	0.0022 J	0.000813 J	0.005 U	0.00167 J	0.005 U
Zinc	mg/L	-	0.0273	0.027	0.01	0.0101	0.0358
Wet Chemistry							
Ammonia	mg/L	-	0.200 U	0.020 U	0.020 U	0.020 U	0.020 U
Nitrate (as N)	mg/L	-	2.87	2.9	1.6	1.6	2.4
Orthophosphate	mg/L	-	0.0100 UJ	0.0100 U	0.0100 U	0.00602 J	0.00647 J
Sulfate	mg/L	**16**	**13.6**	**10**	**7.8**	**7.4**	**7.7**
Field Parameters							
pH	S.U	4.14	5.91	4.28	4.93	-	4.81
Dissolved Oxygen (DO)	mg/L	3.9	3.85	3.09	2.49	-	4.46
Oxidation-reduction potential (ORP)	mv	294	177	324	371	-	320

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27	MW-27	Percent
	Sample Name:	GW-020311-SAG-105	GW-051811-DJB-005	GW-013926-041216-SAG-101	GW-013926-101816-SAG-003	GW-013926-041817-SAG-001	removal
	Sample Date:	2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	(%)
Parameters	**Units**						
Volatile Organic Compounds							
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	**8.6**	1.0 J	1.0 U	1.0 U	**1.1**	100
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	**17**	5.8 J	**1.3**	**1.6**	**1.4**	91
Tetrachloroethene	ug/L	**1800**	**630**	**600**	**570 J**	**310**	83
Trichloroethene	ug/L	**13**	2.4 J	**2.6**	**3.3**	**2.4**	82
Metals							
Sodium	mg/L	-	**395**	**42.6**	**39.6**	-	
Wet Chemistry							
Sulfate	mg/L	**7.0**	**377**	**10**	**8.2**	**8.9**	
Field Parameters							
pH	S.U	4.99	5.02	5.36	5.95	5.91	
Dissolved Oxygen (DO)	mg/L	1.38	3.97	0	5.45	1.17	
Oxidation-reduction potential (ORP)	mv	377	502	335	309	214	

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-28	MW-28	MW-28	MW-28	MW-28	Percent
	Sample Name:	GW-020311-SAG-107	GW-051811-DJB-004	GW-013926-041216-MRB-001	GW-013926-101816-SAG-001	GW-013926-041817-SAG-002	removal
	Sample Date:	2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	(%)
Parameters	**Units**						
Volatile Organic Compounds							
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	0.64 J	
cis-1,2-Dichloroethene	ug/L	**10**	5.0 UJ	1.0 U	1.0 U	**1.2**	88
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	**13**	3.9 J	**1.8**	**1.6**	**1.5**	88
Tetrachloroethene	ug/L	**1800**	**520 J**	**900**	**810 J**	**470**	74
Trichloroethene	ug/L	**13**	0.83 J	**3.6**	**4.3**	**2.7**	79
Metals							
Sodium	mg/L	-	**169**	**60.4**	**52.8**	-	
Wet Chemistry							
Sulfate	mg/L	**4.2**	**77.5**	**13**	**18**	**9.5**	
Field Parameters							
pH	S.U	5.21	4.65	6.05	6.16	6	
Dissolved Oxygen (DO)	mg/L	1.54	1.14	5.32	2.59	1.28	
Oxidation-reduction potential (ORP)	mv	395	532	239	302	227	

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	Percent
	Sample Name:	GW-020311-EAH-008	GW-051711-DJB-003	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-101816-SAG-002	GW-013926-041817-SAG-003	removal
	Sample Date:	2/3/2011	5/17/2011	4/12/2016	4/12/2016	10/18/2016	4/18/2017	
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	(%)
Parameters	Units				Duplicate			
Volatile Organic Compounds								
Bromoform	ug/L	**22**	**9.6**	1.0 U	1.0 U	1.0 U	1.0 U	100
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	1.0 U	1.0 U	1.0 U	0.79 J	
cis-1,2-Dichloroethene	ug/L	**8.2**	5.0 U	1.0 U	**1.4**	**2.0**	**2.0**	76
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	**14**	**6.7**	**1.2**	0.99 J	**1.2**	1.2	91
Tetrachloroethene	ug/L	**2000**	**2000**	**950**	**960**	**940 J**	**680**	66
Trichloroethene	ug/L	**13**	**2.2 J**	**4.6**	**4.4**	**5.4**	**4.4**	66
Metals								
Sodium	mg/L	-	**83.9**	**27.5**	**29.1**	**26.5**	**27.3**	
Wet Chemistry								
Sulfate	mg/L	**160**	**84.1**	**9.2**	**10**	**10**	9.9	
Field Parameters								
pH	S.U	4.98	5.90	5.71	-	5.70	5.61	
Dissolved Oxygen (DO)	mg/L	6.31	4.86	4.5	-	3.14	3.36	
Oxidation-reduction potential (ORP)	mv	363	478	195	-	298	194	

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	Percent
	Sample Name:	GW-021611-DJB-216	GW-021611-DJB-217	GW-051711-DJB-002	GW-013926-041216-MRB-004	GW-013926-101816-SAG-006	GW-013926-041817-SAG-004	removal
	Sample Date:	2/16/2011	2/16/2011	5/17/2011	4/12/2016	10/18/2016	4/18/2017	
	Performance Event:	Pre-injection	(DUP) Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	(%)
Parameters	**Units**							
Volatile Organic Compounds								
Bromoform	ug/L	**60**	**57**	**220**	1.0 U	1.0 U	1.0 U	100
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	**9.1**	**9.0**	**11**	1.0 U	1.0 U	1.0 U	100
Tetrachloroethene	ug/L	**330**	**360**	**220**	**94**	**45**	**64**	81
Trichloroethene	ug/L	**3.6 J**	**3.2 J**	5.0 U	1.0 U	1.0 U	1.0 U	100
Metals								
Sodium	mg/L	-	-	**9.42**	**13.7**	**11.4**	-	
Wet Chemistry								
Sulfate	mg/L	**1.2**	**1.1**	1.43 U	**13**	**11**	**5.9**	
Field Parameters								
pH	S.U	4.24	4.24	5.67	4.59	4.9	4.71	4.41
Dissolved Oxygen (DO)	mg/L	5.23	5.23	5.73	4.07	3.98	5.64	3.90
Oxidation-reduction potential (ORP)	mv	328	328	403	305	317	292	294

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	Percent
	Sample Name:	GW-021611-DJB-218	GW-051711-DJB-001	GW-013926-041216-MRB-005	GW-013926-101816-SAG-004	GW-013926-101816-SAG-005	GW-013926-041817-SAG-005	removal
	Sample Date:	2/16/2011	5/17/2011	4/12/2016	10/18/2016	10/18/2016	4/18/2017	
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	13th Post-injection	14th Post-injection	(%)
Parameters	**Units**					Duplicate		
Volatile Organic Compounds								
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	5.0 U	3.2 J	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**71**	**54**	**14**	**15**	**9.9**	**8.4**	**88**
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Metals								
Sodium	mg/L	-	**8.23**	**6.38**	**5.35**	**5.41**	-	
Wet Chemistry								
Sulfate	mg/L	**16**	**13.6**	**10**	**7.8**	**7.4**	**7.7**	
Field Parameters								
pH	S.U	-	5.91	4.28	4.93	-	4.81	
Dissolved Oxygen (DO)	mg/L	-	3.85	3.09	2.49	-	4.46	
Oxidation-reduction potential (ORP)	mv	-	177	324	371	-	320	

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-3	MW-3	MW-3	MW-3	MW-3
Sample ID:		GW-021110-EAH-023	GW-101211-SAG-009	GW-013926-041316-MRB-010	GW-013926-101916-DJB-107	GW-013926-041917-DJB-108
Sample Date:		2/11/2011	10/12/2011	4/13/2016	10/19/2016	4/19/2017
Parameters	Units					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	90	260	24	53	54
1,1,2,2-Tetrachloroethane	ug/L	11	4.0 J	2.0	14	29
1,1,2-Trichloroethane	ug/L	5.4	6.6	1.0 U	4.4	3.5
1,1-Dichloroethane	ug/L	69	84	5.6	15	14
1,1-Dichloroethene	ug/L	15	21	1.7 J	6.7	6.8
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	2.7	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	4.2 J	1.8 J	1.0 U	4.2	2.4
1,2-Dichloroethane	ug/L	6.0	2.7 J	1.0 U	3.2	2.1
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	2.4 J	1.2 J	1.0 U	2.5	1.3
1,4-Dichlorobenzene	ug/L	3.0 J	1.3 J	1.0 U	3.0	2.0
1,4-Dioxane	ug/L		-	150 U	340 J	180
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	11	4.6 J	1.0 U	3.4	2.2
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	10	3.7 J	1.0 U	11	6.4
Chloroethane	ug/L	5.6 J	2.8 J	1.0 U	3.2	1.8
Chloroform (Trichloromethane)	ug/L	7.0	5.0 J	0.97 J	5.1	5.9
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	310	130	12	320	250
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	1.3 J
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	170	440	83	170	160
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.6	5.0 U	2.0 U	4.8	3.2
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	49	99	15	42	36
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	98	25	1.0 U	44	30
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-3	MW-3	MW-3	MW-3	MW-3
Sample ID:		GW-021110-EAH-023	GW-101211-SAG-009	GW-013926-041316-MRB-010	GW-013926-101916-DJB-107	GW-013926-041917-DJB-108
Sample Date:		2/11/2011	10/12/2011	4/13/2016	10/19/2016	4/19/2017
Metals						
Arsenic	mg/L	-	0.0500 U	0.00235 J	0.00192 J	0.00131 J
Arsenic (dissolved)	mg/L	-	-	-	-	-
Barium	mg/L	-	0.242	0.278	0.382	0.268
Barium (dissolved)	mg/L	-	-	-	-	-
Cadmium	mg/L	-	0.0050 U	0.000496 J	0.00057 J	0.000246 J
Cadmium (dissolved)	mg/L	-	-	-	-	-
Chromium	mg/L	-	0.0011 J	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	-	-
Copper	mg/L	-	0.0100 U	0.00236	0.000906 J	0.000256 J
Copper (dissolved)	mg/L	-	-	-	-	
Iron	mg/L	17.3	12.9	6.69	4.79	-
Iron (dissolved)	mg/L	12.9	-	-	-	6
Lead	mg/L	-	0.0100 U	0.00102	0.001 U	0.001 U
Lead (dissolved)	mg/L	-	-	-	-	-
Manganese	mg/L	10.9 J	9.35	-	13.8	-
Manganese (dissolved)	mg/L	10.0 J	-	-	-	10.8
Selenium	mg/L	-	0.0083 J	0.000572 J	0.005 U	0.000285 J
Selenium (dissolved)	mg/L	-	-		-	-
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9.0 U	8.7 J	4.3 J
Ethene	ug/L	7 U	7 U	7.0 U	7.2	3.6 J
Methane	ug/L	1400	99	4.0 U	580	210
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	42.9	27.8	22.0	37.0	30.0
Ammonia	mg/L	-	0.188 J	0.020 U	0.071	0.065
Chloride	mg/L	58	44	18	47	34
Ferrous iron	mg/L	12.6	-	-	-	
Nitrate (as N)	mg/L	0.25 U	2.5 U	6.1	0.33	0.25 U
Orthophosphate	mg/L	-	0.0100 U	0.00986 J	0.00804 J	0.0100 U
Sulfate	mg/L	18	9.6 J	7.7	8.3	15
Total organic carbon (TOC)	mg/L	4.12 U	4.83	4.72	7.80	10.1
Field Parameters						
pH	S.U	5.32	5.69	5.39	5.53	5.61
DO	mg/L	0.52	0.68	2.92	0.0	0.0
ORP	mv	117	90	275	109	145

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-4	MW-4	MW-4	MW-4	MW-4
Sample ID:		GW-020911-DJB-208	GW-101211-DJB-107	GW-013926-041416-SAG-110	GW-013926-101916-SAG-012	GW-013926-042017-DJB-110
Sample Date:		2/9/2011	10/12/2011	4/14/2016	10/19/2016	4/20/2017
Parameters	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	3.5	3.8 J	1.1
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	4.9 J	4.0 J	9.6	15	4.3
1,1-Dichloroethene	ug/L	3.1 J	3.0 J	5.2	8.5	2.9
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	140	29
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	0.41 J	2.9	4.1	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.8	1.9	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	33	30	79	130	34
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	11	7.5	23	36	11
Toluene	ug/L	5.0 U	31	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	22	19	72	120	25
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	2.1 J	5.0 U	5.0 U
Vinyl chloride	ug/L	0.96 J	2.1	1.5	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-4 GW-020911-DJB-208 2/9/2011	MW-4 GW-101211-DJB-107 10/12/2011	MW-4 GW-013926-041416-SAG-110 4/14/2016	MW-4 GW-013926-101916-SAG-012 10/19/2016	MW-4 GW-013926-042017-DJB-110 4/20/2017
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.000468 J	0.000187 J	0.000199 J
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-
Barium	mg/L	0.171	0.179	0.171	0.196	0.138
Barium (dissolved)	mg/L	0.148	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.0007 U	0.000389 J	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-
Chromium	mg/L	0.0100 U	0.0100 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-
Copper	mg/L	0.0100 U	0.0100 U	0.002 U	0.00103 J	0.00028 J
Copper (dissolved)	mg/L	0.0100 U	-	-	-	
Iron	mg/L	0.157	0.100 U	0.1 U	0.226	-
Iron (dissolved)	mg/L	0.100 U	-	-	-	0.00987 J
Lead	mg/L	0.0100 U	0.0100 U	0.000144 J	0.001 U	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-
Manganese	mg/L	2.51	2.81	-	0.292	-
Manganese (dissolved)	mg/L	2.26	-	-	-	2.12
Selenium	mg/L	0.0200 U	0.0200 U	0.000875 J	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-	-
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	21	160	23	6.7
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	37.9	34.1	36.0	43.0	34.0
Ammonia	mg/L	-	0.056 J	0.020 U	0.088	0.020
Chloride	mg/L	8.5	8.7	12	21	6.0
Ferrous iron	mg/L	0.100 UJ	-	-	-	
Nitrate (as N)	mg/L	6.8	9.4	4.0	1.1	3.8
Orthophosphate	mg/L	-	0.0389	0.0240	0.0354	0.0261
Sulfate	mg/L	11	15	13	8.2	11
Total organic carbon (TOC)	mg/L	5.00 U	2.89	2.32	1.00 U	2.53
Field Parameters						
pH	S.U	4.96	5.63	5.36	5.53	5.51
DO	mg/L	2.5	0.36	4.10	0.0	0.0
ORP	mv	330	101	293	235	359

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are
reported using smaller reporitng limts

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-11 GW-021011-DJB-210 2/10/2011	MW-11 GW-101211-SAG-006 10/12/2011	MW-11 GW-013926-041316-MRB-006 4/13/2016	MW-11 GW-013926-101916-SAG-010 10/19/2016	MW-11 GW-013926-041917-SAG-007 4/19/2017
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	4.4 J	3.4 J	3.0	1.0 U	2.1
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	2.1	4.2
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	14	9.6	8.2	1.0 U	6.8
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	16	7.2	11	9.4	7.7
Toluene	ug/L	41	5.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	34	19	28	5.4	19
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-11 GW-021011-DJB-210 2/10/2011	MW-11 GW-101211-SAG-006 10/12/2011	MW-11 GW-013926-041316-MRB-006 4/13/2016	MW-11 GW-013926-101916-SAG-010 10/19/2016	MW-11 GW-013926-041917-SAG-007 4/19/2017
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.005 U	0.005 U	0.000287 J
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-
Barium	mg/L	0.119	0.110	0.0655	0.0593	0.0596
Barium (dissolved)	mg/L	0.112	-	-	-	-
Cadmium	mg/L	0.0005 J	0.0002 J	0.000286 J	0.00048 J	0.000372 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-
Chromium	mg/L	0.0100 U	0.0100 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-
Copper	mg/L	0.0100 U	0.0100 U	0.00283	0.00115 J	0.000465 J
Copper (dissolved)	mg/L	0.0100 U	-	-	-	-
Iron	mg/L	0.117	0.100 U	0.308	0.0686 J	-
Iron (dissolved)	mg/L	0.100 U	-	-	-	0.067 J
Lead	mg/L	0.0100 U	0.0014 J	0.000907 J	0.001 U	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-
Manganese	mg/L	1.03	0.867	-	0.398	-
Manganese (dissolved)	mg/L	1.02	-	-	-	0.471
Selenium	mg/L	0.0200 U	0.0200 U	0.000368 J	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-	-
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	4 U	31	1.9 J	14
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	8.7 J	8.9 J	5.00	11.0	12.0
Ammonia	mg/L	0.200 U	0.030 J	0.211	0.020 U	0.020 U
Chloride	mg/L	16	12	7.1	5.8	6.7
Ferrous iron	mg/L	0.100 UJ	-	-	-	
Nitrate (as N)	mg/L	0.65	0.47	0.26	0.26	0.33
Orthophosphate	mg/L	0.00584 J	0.0100 U	0.00856 J	0.0100 U	0.00637 J
Sulfate	mg/L	1.0 U	1.0 U	0.39 J	0.99 J	0.62 J
Total organic carbon (TOC)	mg/L	3.36	3.43	7.48	2.09	1.89
Field Parameters						
pH	S.U	5.21	5.29	4.57	5.49	5.37
DO	mg/L	9.02	4.77	7.0	2.16	1.31
ORP	mv	325	305	261	332	225

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-12 GW-021511-DJB-214 2/15/2011	MW-12 GW-021511-DJB-215 2/15/2011	MW-12 GW-101211-SAG-010 10/12/2011	MW-12 GW-013926-041316-SAG-107 4/13/2016	MW-12 GW-013926-101816-SAG-007 10/18/2016	MW-12 GW-013926-101816-SAG-008 10/18/2016 Duplicate	MW-12 GW-013926-041817-DJB-105 4/18/2017
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.5 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	3.2 J	3.3 J	3.0 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	1.7 J	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	150 U	13	13	12
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	16 J	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.7 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	180	190	170	9.4	15	15	14
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	62	59	50	47	62	55	28
Toluene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	390	390	400	40	61	58	49
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.1	2.1	1.6 J	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Sample Location:		MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Sample ID:		GW-021511-DJB-214	GW-021511-DJB-215	GW-101211-SAG-010	GW-013926-041316-SAG-107	GW-013926-101816-SAG-007	GW-013926-101816-SAG-008	GW-013926-041817-DJB-105
Sample Date:		2/15/2011	2/15/2011	10/12/2011	4/13/2016	10/18/2016	10/18/2016	4/18/2017
							Duplicate	
Metals								
Arsenic	mg/L	-	-	0.0500 U	0.000638 J	0.005 U	0.005 U	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	-	-	-	-
Barium	mg/L	-	-	0.108	0.171	0.143	0.141	0.109
Barium (dissolved)	mg/L	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	0.0050 U	0.000254 J	0.000203 J	0.000201 J	0.0007 U
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	-
Chromium	mg/L	-	-	0.0026 J	0.00529	0.005 U	0.005 U	0.00464 J
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-	-
Copper	mg/L	-	-	0.0011 J	0.002 U	0.00131 J	0.00108 J	0.002 U
Copper (dissolved)	mg/L	-	-	-	-	-	-	
Iron	mg/L	0.156	0.100 U	0.276 U	0.0518 J	0.118	0.12	-
Iron (dissolved)	mg/L	0.100 U	0.100 U	-	-	-	-	0.0638 J
Lead	mg/L	-	-	0.0100 U	0.000278 J	0.001 U	0.001 U	0.001 U
Lead (dissolved)	mg/L	-	-	-	-	-	-	-
Manganese	mg/L	0.184	0.186	0.134	-	0.176	0.176	-
Manganese (dissolved)	mg/L	0.178	0.180	-	-	-	-	0.0766
Selenium	mg/L	-	-	0.0200 U	0.00122 J	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	-	-	-		-	-	-
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	4 U	4 U	1.8 J	4.0 U	1.2 J	4.0 U
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	15.5	14.5	11.6	7.00	6.00	8.00	9.00
Ammonia	mg/L	-	-	0.049 J	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	10	10	8.7	14	11	12	9.2
Ferrous iron	mg/L	0.100 U	0.100 U	-	-	-	-	
Nitrate (as N)	mg/L	0.75	0.76	0.74	3.2	1.9	1.9	1.5
Orthophosphate	mg/L	-	-	0.0219	0.0208	0.0289	0.0292	0.0384
Sulfate	mg/L	2.3	3.8	2.1	2.0	2.2	2.2	2.6
Total organic carbon (TOC)	mg/L	5.00 U	1.00 U	2.87	1.46	1.00 U	0.532 J	1.15
Field Parameters								
pH	S.U	4.67	4.67	5.42	4.64	5.24	-	5.66
DO	mg/L	3.23	3.23	3.95	0.0	0.0	-	0.0
ORP	mv	356	356	206	375	329	-	384

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-14	MW-14	MW-14	MW-14	MW-14
Sample ID:		GW-020911-SAG-119	GW-101311-SAG-012	GW-013926-041316-SAG-106	GW-013926-101816-DJB-102	GW-013926-041817-DJB-101
Sample Date:		2/9/2011	10/13/2011	4/13/2016	10/18/2016	4/18/2017
Parameters	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	2.0 U	1.6 J
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-14 GW-020911-SAG-119 2/9/2011	MW-14 GW-101311-SAG-012 10/13/2011	MW-14 GW-013926-041316-SAG-106 4/13/2016	MW-14 GW-013926-101816-DJB-102 10/18/2016	MW-14 GW-013926-041817-DJB-101 4/18/2017
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.000421 J	0.005 U	0.005 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-
Barium	mg/L	0.0443	0.0487	0.0488	0.0424	0.0464
Barium (dissolved)	mg/L	0.0383	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.000188 J	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-
Chromium	mg/L	0.0100 U	0.0015 J	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-
Copper	mg/L	0.0009 J	0.0100 U	0.002 U	0.000953 J	0.002 U
Copper (dissolved)	mg/L	0.0100 U	-	-	-	
Iron	mg/L	0.332	1.21	0.465	0.489	-
Iron (dissolved)	mg/L	0.100 U	-	-	-	0.386
Lead	mg/L	0.0100 U	0.0008 J	0.000514 J	0.001 U	0.000336 J
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-
Manganese	mg/L	0.0039 J	0.0090 J	-	0.00502	-
Manganese (dissolved)	mg/L	0.0063 J	-	-	-	0.00533
Selenium	mg/L	0.0200 U	0.0200 U	0.00153 J	0.005 U	0.000531 J
Selenium (dissolved)	mg/L	0.0200 U	-		-	-
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	7	4 U	4.0 U	1.6 J	4.0 U
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	11.9	10.0 U	21.0	19.0	18.0
Ammonia	mg/L	-	0.020 J	0.020 U	0.020 U	0.020 U
Chloride	mg/L	5.8	2.3	2.5	2.1	1.9
Ferrous iron	mg/L	0.100 UJ	-	-	-	
Nitrate (as N)	mg/L	1.3	1.4	1.7	1.4	1.6
Orthophosphate	mg/L	-	0.0171	0.0103	0.0123	0.0146
Sulfate	mg/L	14	16	15	13	14
Total organic carbon (TOC)	mg/L	1.00 U	0.565 J	0.961 J	1.00 U	0.579 J
Field Parameters						
pH	S.U	4.94	5.45	5.1	5.68	5.85
DO	mg/L	6.5	5.14	1.27	4.92	2.46
ORP	mv	455	290	309	255	370

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-35	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35
Sample ID:		GW-021011-EAH-018	GW-101211-SAG-008	GW-013926-041316-MRB-007	GW-013926-041316-MRB-008	GW-013926-101916-SAG-011	GW-013926-042017-SAG-008	GW-013926-042017-SAG-009
Sample Date:		2/10/2011	10/12/2011	4/13/2016	4/13/2016	10/19/2016	4/20/2017	4/20/2017
Parameters	Units				Duplicate			Duplicate
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	1.1 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	18	33	14	13	4.4	7.8	7.5
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	9.2	11	1.7	1.7	1.0 U	1.0	0.95 J
1,1-Dichloroethene	ug/L	3.2 J	3.4 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	0.94 J	1.8 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.6 J	2.1 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	3.3 J	4.9 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	150 U	16	12	16
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	6.2	11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.2 J	1.6 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	4.3 J	5.5 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	2.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	72	78	39	38	23	27	27
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	16	18	14	14	10	8.6	8.8
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	170	210	140	140	81	79	80
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	7.6	9.7	1.4	1.3	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35
Sample Location:		MW-35	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35
Sample ID:		GW-021011-EAH-018	GW-101211-SAG-008	GW-013926-041316-MRB-007	GW-013926-041316-MRB-008	GW-013926-101916-SAG-011	GW-013926-042017-SAG-008	GW-013926-042017-SAG-009
Sample Date:		2/10/2011	10/12/2011	4/13/2016	4/13/2016	10/19/2016	4/20/2017	4/20/2017
					Duplicate			Duplicate
Metals								
Arsenic	mg/L	0.0500 U	0.0500 U	0.000504 J	0.00048 J	0.000360 J	0.005 U	0.000169 J
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	-	-
Barium	mg/L	0.523	0.411	0.211	0.207	0.18	0.196	0.208
Barium (dissolved)	mg/L	0.453	-	-	-	-	-	-
Cadmium	mg/L	0.0004 J	0.0003 J	0.000211 J	0.00021 J	0.000188 J	0.000586 J	0.000674 J
Cadmium (dissolved)	mg/L	0.0001 J	-	-	-	-	-	-
Chromium	mg/L	0.0100 U	0.0100 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	-	-
Copper	mg/L	0.0019 J	0.0020 J	0.00408	0.00411	0.000587 J	0.00379	0.00508
Copper (dissolved)	mg/L	0.0100 U	-	-	-	-		
Iron	mg/L	0.395	0.123 U	0.304	0.307	0.100 U	-	-
Iron (dissolved)	mg/L	0.0397 J	-	-	-	-	0.0921 J	0.211 J
Lead	mg/L	0.0100 U	0.0007 J	0.000614 J	0.000657 J	0.00100 U	0.000373 J	0.000415 J
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	-	-
Manganese	mg/L	0.684	0.507	-	-	3.96	-	-
Manganese (dissolved)	mg/L	0.610	-	-	-	-	0.288	0.286
Selenium	mg/L	0.0200 U	0.0200 U	0.00139 J	0.00158 J	0.00500 U	0.000367 J	0.000306 J
Selenium (dissolved)	mg/L	0.0200 U	-				-	-
Dissolved Gas								
Ethane	ug/L	-	9 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	-	7 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	-	1300	9.4	9.4	8.5	20 J	39 J
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	-	6.3 J	5.00	3.00 U	5.00	6.00	6.00
Ammonia	mg/L	0.046 J	0.068 J	0.141 J	0.052 J	0.015 J	0.020 U	0.012 J
Chloride	mg/L	-	53	29	30	28	29	28
Ferrous iron	mg/L	0.100 U	-	-	-	-		
Nitrate (as N)	mg/L	0.31	0.34	0.38	0.38	0.38	0.27	0.27
Orthophosphate	mg/L	0.00747 J	0.0127	0.00703 J	0.00857 J	0.00514 J	0.00524 J	0.00411 J
Sulfate	mg/L	1.7	1.4	2.7 J	9.9 J	0.87 J	0.55 J	0.90 J
Total organic carbon (TOC)	mg/L	-	6.98	5.49	5.67	1.21	2.76	2.68
Field Parameters								
pH	S.U	4.38	4.88	4.78	-	4.96	5.05	-
DO	mg/L	0	0.91	7.16	-	0.0	0.36	-
ORP	mv	352	268	262	-	271	204	-

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-42	MW-42	MW-42	MW-42	MW-42
Sample ID:		GW-020911-EAH-017	GW-101211-SAG-011	GW-013926-041216-SAG-102	GW-013926-101916-DJB-106	GW-013926-041917-DJB-106
Sample Date:		2/9/2011	10/12/2011	4/12/2016	10/19/2016	4/19/2017
Parameters	Units					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	16	11	2.6	2.1	2.1
1,1,2,2-Tetrachloroethane	ug/L	57	37	16	8.5	14
1,1,2-Trichloroethane	ug/L	3.4 J	3.3 J	1.0 U	1.0 U	1.4
1,1-Dichloroethane	ug/L	110	94	22	23	24
1,1-Dichloroethene	ug/L	140	110	25	31	35
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	7.1	5.9	2.4	2.2	2.0
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	0.93 J	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	550 J	330
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	34	21	0.60 J	0.86 J	0.64 J
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 J	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	57	39	15	14	15
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1000	750	190	230	210
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	0.97 J	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	3.6 J	3.2 J	5.0 U	5.0 U	1.8 J
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	180	130	49	110	80
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	4.3 J	5.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	820	700	230	320	270
Trichlorofluoromethane (CFC-11)	ug/L	6.8	8.6	4.0	2.6	4.6
Trifluorotrichloroethane (Freon 113)	ug/L	47	37	6.7	5.0 U	13
Vinyl chloride	ug/L	31	24	1.6	1.9	2.1
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-42 GW-020911-EAH-017 2/9/2011	MW-42 GW-101211-SAG-011 10/12/2011	MW-42 GW-013926-041216-SAG-102 4/12/2016	MW-42 GW-013926-101916-DJB-106 10/19/2016	MW-42 GW-013926-041917-DJB-106 4/19/2017
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.000432 J	0.000237 J	0.00035 J
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-
Barium	mg/L	0.488	0.351	0.184	0.234	0.268
Barium (dissolved)	mg/L	0.125	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.000359 J	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-
Chromium	mg/L	0.0214	0.0130	0.00132 J	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-
Copper	mg/L	0.0028 J	0.0014 J	0.000378 J	0.000645 J	0.000728 J
Copper (dissolved)	mg/L	0.0100 U	-	-	-	
Iron	mg/L	11.1	7.27	0.679	0.906	-
Iron (dissolved)	mg/L	0.0316 J	-	-	-	1.42
Lead	mg/L	0.0100 U	0.0024 J	0.000261 J	0.001 U	0.000467 J
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-
Manganese	mg/L	0.218	0.176	-	0.0322	-
Manganese (dissolved)	mg/L	0.0501	-	-	-	0.0532
Selenium	mg/L	0.0200 U	0.0200 U	0.000989 J	0.005 U	0.000282 J
Selenium (dissolved)	mg/L	0.0200 U	-		-	-
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	95	110	12	8.5	6.7
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	59.7	53.0	26.0	40.0	44.0
Ammonia	mg/L	-	0.060 J	0.020 U	0.034	0.020 U
Chloride	mg/L	2.2	2.0	14 J	13	13
Ferrous iron	mg/L	1.51 J	-	-	-	
Nitrate (as N)	mg/L	0.42	0.38	1.6	1.2	1.1
Orthophosphate	mg/L	-	0.123	0.147	0.151	0.0457
Sulfate	mg/L	1.5	0.56 J	0.46 J	0.49 J	0.43 J
Total organic carbon (TOC)	mg/L	0.730 J	3.25	9.42	0.650 J	1.86
Field Parameters						
pH	S.U	5.94	5.88	5.32	5.97	6.07
DO	mg/L	1.4	0.6	0.0	0.0	0.0
ORP	mv	147	153	299	107	161

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

Sample Location:		TW-2	TW-2	TW-2	TW-2	TW-2
Sample ID:		GW-020911-EAH-016	GW-101311-SAG-013	GW-013926-041316-SAG-105	GW-013926-101816-DJB-103	GW-013926-041817-DJB-102
Sample Date:		2/9/2011	10/13/2011	4/13/2016	10/18/2016	4/18/2017
Parameters	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	2.0 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U

Table 4A
Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, Spartanburgh County, South Carolina

	Sample Location:	TW-2	TW-2	TW-2	TW-2	TW-2
	Sample ID:	GW-020911-EAH-016	GW-101311-SAG-013	GW-013926-041316-SAG-105	GW-013926-101816-DJB-103	GW-013926-041817-DJB-102
	Sample Date:	2/9/2011	10/13/2011	4/13/2016	10/18/2016	4/18/2017
Parameters	**Units**					
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.000366 J	0.005 U	0.000157 J
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-
Barium	mg/L	0.389	0.208	0.0174	0.0358	0.0282
Barium (dissolved)	mg/L	0.0227	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.000186 J	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-
Chromium	mg/L	0.0416	0.0184	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-
Copper	mg/L	0.0721	0.0187	0.002 U	0.00254	0.0023
Copper (dissolved)	mg/L	0.0011 J	-	-	-	
Iron	mg/L	19.9	10.1	0.0379 J	0.89	-
Iron (dissolved)	mg/L	0.0864 J	-	-	-	0.819
Lead	mg/L	0.0174	0.0056 J	0.000523 J	0.001 U	0.000287 J
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-
Manganese	mg/L	1.99	1.49	-	0.195	-
Manganese (dissolved)	mg/L	0.638	-	-	-	0.275
Selenium	mg/L	0.0200 U	0.0200 U	0.00109 J	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-	-
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	890	16	4.0 U	73	25
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	42.6	35.2	25.0	29.0	27.0
Ammonia	mg/L	-	0.012 J	0.020 U	0.020 U	0.020 U
Chloride	mg/L	1.9	2.2	2.3	1.8	1.9
Ferrous iron	mg/L	0.200 UJ	-	-	-	
Nitrate (as N)	mg/L	0.62	0.72	1.0	0.92	1.2
Orthophosphate	mg/L	-	0.0908	0.0868	0.0848	0.0853
Sulfate	mg/L	2.8	2.3	3.5	2.3	2.1
Total organic carbon (TOC)	mg/L	1.00 U	0.733 J	1.44	1.00 U	0.596 J
Field Parameters						
pH	S.U	6.65	6.72	6.22	6.56	5.22
DO	mg/L	1.99	0.84	0.0	1	0.0
ORP	mv	210	224	177	170	309

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
Sample Location:		MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-10A
Sample ID:		GW-020211-EAH-001	GW-101111-SAG-005	GW-013926-041316-SAG-108	GW-013926-101916-DJB-105	GW-013926-041917-DJB-107	GW-020911-DJB-209
Sample Date:		2/2/2011	10/11/2011	4/13/2016	10/19/2016	4/19/2017	2/9/2011
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0	1.9	1.2	5.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dioxane	ug/L	-	-	150 U	58	43	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	17 J	11 J	24	20 U	20 U	50 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	10 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	10 U
cis-1,2-Dichloroethene	ug/L	16	15	6.2	17	1.4	3.5 J
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	10 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Tetrachloroethene	ug/L	14	1.8 J	1.0 U	1.0 U	1.0 U	5.0 U
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.4
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Trichloroethene	ug/L	3.5 J	3.6 J	1.7	1.0 U	1.4	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
Sample Location:		MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-10A
Sample ID:		GW-020211-EAH-001	GW-101111-SAG-005	GW-013926-041316-SAG-108	GW-013926-101916-DJB-105	GW-013926-041917-DJB-107	GW-020911-DJB-209
Sample Date:		2/2/2011	10/11/2011	4/13/2016	10/19/2016	4/19/2017	2/9/2011
Parameters	***Units***						
Metals							
Arsenic	mg/L	-	0.0500 U	0.000882 J	0.000689 J	0.000802 J	50 U
Arsenic (dissolved)	mg/L	-	-	-	-	-	50 U
Barium	mg/L	-	0.0154 J	0.0664	0.0768	0.0811	17.1 J
Barium (dissolved)	mg/L	-	-	-	-	-	11.6 J
Cadmium	mg/L	-	0.0050 U	0.000474 J	0.000195 J	0.000213 J	5 U
Cadmium (dissolved)	mg/L	-	-	-	-	-	5 U
Chromium	mg/L	-	0.0011 J	0.005 U	0.005 U	0.005 U	10 U
Chromium Total (dissolved)	mg/L	-	-	-	-	-	10 U
Copper	mg/L	-	0.0045 J	0.000683 J	0.00138 J	0.00093 J	10 U
Copper (dissolved)	mg/L	-	-	-	-	-	10 U
Iron	mg/L	-	0.100 U	0.231	0.174	-	103
Iron (dissolved)	mg/L	-	-	-	-	0.305	100 U
Lead	mg/L	-	0.0100 U	0.000423 J	0.001 U	0.000317 J	9.6 J
Lead (dissolved)	mg/L	-	-	-	-	-	10 U
Manganese	mg/L	-	0.0455	-	0.14	-	118
Manganese (dissolved)	mg/L	-	-	-	-	0.186	2.6 J
Selenium	mg/L	-	0.0200 U	0.005 U	0.005 U	0.005 U	20 U
Selenium (dissolved)	mg/L	-	-		-	-	20 U
Dissolved Gas							
Ethane	ug/L	-	9 U	9.0 U	9.0 U	9.0 U	9 U
Ethene	ug/L	-	7 U	5.4 J	7.0 U	5.6 J	7 U
Methane	ug/L	-	33	1800	330	2600	4 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	-	365	138	150	188	73700
Ammonia	mg/L	-	0.067 J	1.57	1.59	3.79	-
Chloride	mg/L	-	15	7.7	9.1	5.0	1400
Ferrous iron	mg/L	-	-	-	-		100 UJ
Nitrate (as N)	mg/L	-	2.5 U	0.031 J	0.033 J	0.25 U	99 J
Orthophosphate	mg/L	-	0.0151 U	0.159	0.234	0.187	-
Sulfate	mg/L	-	22	5.9	7.2	5.8	10000
Total organic carbon (TOC)	mg/L	-	25.6	4.77	4.99	3.84	577 J
Field Parameters							
pH	S.U	11.69	11.6	7.10	6.72	7.44	7.25
DO	mg/L	2.73	3.26	0.0	0.58	0.76	5.36
ORP	mv	17	-5	-80	-144	-121	215

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
Sample Location:		MW-13	MW-13	MW-13	MW-13	MW-13	MW-13
Sample ID:		GW-020911-SAG-120	GW-101211-DJB-105	GW-101211-DJB-104	GW-013926-041216-SAG-103	GW-013926-101816-DJB-104	GW-013926-041817-DJB-103
Sample Date:		2/9/2011	10/12/2011	10/12/2011	4/12/2016	10/18/2016	4/18/2017
			Duplicate				
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.4 J	1.7 J	1.6 J	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	12	10	11	4.2	2.9	5.6
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	15	30	30	2.3	4.9	7.3
1,1-Dichloroethene	ug/L	13	29	28	1.8 J	4.3	6.8
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	0.88 J	1.9 J	1.9 J	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	1.0 J	0.99 J	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	150 U	42	56
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	1.6 J	6.8	7.0	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	0.55 J	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.4	8.1	7.9	1.4	1.6	2.3
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	270	320	350	69	93	130
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	2.2 J	2.2 J	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	61	76	75	27	46	35
Toluene	ug/L	5.0 U	13	14	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	330	400	430	140	180	190
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	7.6 J	15	15	5.0 U	5.0 U	4.0 J

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
Sample Location:		MW-13	MW-13	MW-13	MW-13	MW-13	MW-13
Sample ID:		GW-020911-SAG-120	GW-101211-DJB-105	GW-101211-DJB-104	GW-013926-041216-SAG-103	GW-013926-101816-DJB-104	GW-013926-041817-DJB-103
Sample Date:		2/9/2011	10/12/2011	10/12/2011	4/12/2016	10/18/2016	4/18/2017
			Duplicate				
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.000371 J	0.005 U	0.000439 J
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	-
Barium	mg/L	0.102	0.0979	0.104	0.0615	0.0735	0.0806
Barium (dissolved)	mg/L	0.0903	-	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0004 J	0.0050 U	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	-
Chromium	mg/L	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	-
Copper	mg/L	0.0100 U	0.0100 U	0.0100 U	0.002 U	0.000768 J	0.002 U
Copper (dissolved)	mg/L	0.0100 U	-	-	-	-	-
Iron	mg/L	0.0272 J	0.100 U	0.174 U	0.1 U	0.1 U	-
Iron (dissolved)	mg/L	0.100 U	-	-	-	-	0.1 U
Lead	mg/L	0.0100 U	0.0026 J	0.0074 J	0.000207 J	0.001 U	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	-
Manganese	mg/L	0.0798	0.0601	0.0679	-	0.0329	-
Manganese (dissolved)	mg/L	0.0635	-	-	-	-	0.0201
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.000981 J	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-	-		-	-
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	39	200	210	1.3 J	4.0 U	2.4 J
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	30.8	43.3	45.1	25.0	23.0	31.0
Ammonia	mg/L	-	0.029 J	0.036 J	0.020 U	0.020 U	0.020 U
Chloride	mg/L	21	18	18	9.6 J	11	13
Ferrous iron	mg/L	0.100 UJ	-	-	-	-	
Nitrate (as N)	mg/L	0.86	0.42	0.41	0.89	0.67	0.74
Orthophosphate	mg/L	-	0.212	0.214	0.0815	0.138	0.169
Sulfate	mg/L	1.1	1.0	2.3	0.81 J	0.57 J	1.0
Total organic carbon (TOC)	mg/L	0.205 J	3.15	2.62	11.2	1.00 U	1.36
Field Parameters							
pH	S.U	5.32	6.3	6.3	4.97	5.83	4.42
DO	mg/L	0.39	0.6	0.6	0.24	0.88	0.0
ORP	mv	452	142	142	350	291	321

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

							Shallow Bedr
	Sample Location:	MW-41	MW-41	MW-41	MW-41	MW-41	MW-4A
	Sample ID:	GW-021111-DJB-212	GW-101211-DJB-103	GW-013926-041216-SAG-104	GW-013926-101816-DJB-101	GW-013926-041817-DJB-104	GW-020911-DJB-207
	Sample Date:	2/11/2011	10/12/2011	4/12/2016	10/18/2016	4/18/2017	2/9/2011
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	3.5 J	5.0 U	1.0 U	1.0 U	0.66 J	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.2	3.1 J	1.0 U	1.0 U	0.96 J	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	ug/L	1.8 J	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethene	ug/L	6.1	5.0 U	1.4 J	2.0 U	1.6 J	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.9	2.6 J	1.8	1.0 U	1.4	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dioxane	ug/L	-	-	150 U	7.1	7.9	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	50 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	10 U
Chloroform (Trichloromethane)	ug/L	5.9	1.4 J	1.8	1.0 U	1.5	5.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	10 U
cis-1,2-Dichloroethene	ug/L	37	9.4	2.5	2.1	2.4	3.3 J
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	10 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Tetrachloroethene	ug/L	20	4.4 J	5.7	9.6	8.2	5.0 U
Toluene	ug/L	1.0 J	12	1.0 U	1.0 U	1.0 U	9.1
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	5.0 U
Trichloroethene	ug/L	47	8.5	7.9	8.7	7.5	2.3 J
Trichlorofluoromethane (CFC-11)	ug/L	2.4 J	5.0 U	1.3	1.0 U	1.5	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	10 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

							Shallow Bedr
Sample Location:		MW-41	MW-41	MW-41	MW-41	MW-41	MW-4A
Sample ID:		GW-021111-DJB-212	GW-101211-DJB-103	GW-013926-041216-SAG-104	GW-013926-101816-DJB-101	GW-013926-041817-DJB-104	GW-020911-DJB-207
Sample Date:		2/11/2011	10/12/2011	4/12/2016	10/18/2016	4/18/2017	2/9/2011
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.000424 J	0.005 U	0.000547 J	0.0500 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	0.0500 U
Barium	mg/L	0.243	0.363	0.176	0.173	0.171	0.0180 J
Barium (dissolved)	mg/L	0.233	-	-	-	-	0.0162 J
Cadmium	mg/L	0.0050 U	0.0050 U	0.000236 J	0.000313 J	0.0007 U	0.0050 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	0.0050 U
Chromium	mg/L	0.0011 J	0.0165	0.00143 J	0.005 U	0.005 U	0.0100 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	0.0100 U
Copper	mg/L	0.0014 J	0.0169	0.00104 J	0.00149 J	0.002 U	0.0015 J
Copper (dissolved)	mg/L	0.0100 U	-	-	-		0.0146 J
Iron	mg/L	0.538	11.4	0.508	0.402	-	0.330
Iron (dissolved)	mg/L	0.100 U	-	-	-	1.27	0.0562 J
Lead	mg/L	0.0100 U	0.0034 J	0.000799 J	0.00105 U	0.000368 J	0.108
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	0.0195
Manganese	mg/L	0.147	0.191	-	0.0326	-	0.0073 J
Manganese (dissolved)	mg/L	0.141	-	-	-	0.128	0.0055 J
Selenium	mg/L	0.0200 U	0.0200 U	0.000406 J	0.005 U	0.005 U	0.0200 U
Selenium (dissolved)	mg/L	0.0200 U	-		-	-	0.0200 U
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U	9 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U	7 U
Methane	ug/L	4 U	4 U	4.0 U	4.0 U	4.0 U	4 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	10.0 U	10.0 U	5.00	2.00 J	4.00	36.8
Ammonia	mg/L	-	0.025 J	0.020 U	0.020 U	0.020 U	-
Chloride	mg/L	22	15	12 J	11	11	1.5
Ferrous iron	mg/L	0.100 U	-	-	-		0.100 UJ
Nitrate (as N)	mg/L	3.2	2.6	1.2	1.2	1.3	0.25 U
Orthophosphate	mg/L	-	0.0976	0.182	0.236	0.212	-
Sulfate	mg/L	15	15	17	16	15	9.3
Total organic carbon (TOC)	mg/L	2.92 U	4.36	10.7	0.402 J	1.16	1.00 U
Field Parameters							
pH	S.U	4.9	5.8	4.55	5.14	4.57	6.12
DO	mg/L	6.11	8.6	1.60	5.01	2.30	0.14
ORP	mv	320	272	402	283	407	203

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Bed Rock Unit				
Sample Location:		MW-11A	MW-11A	MW-11A	MW-11A	MW-11A
Sample ID:		GW-021011-EAH-021	GW-101211-SAG-007	GW-013926-041316-MRB-009	GW-013926-101916-SAG-009	GW-013926-041917-SAG-006
Sample Date:		2/10/2011	10/12/2011	4/13/2016	10/19/2016	4/19/2017
Parameters	***Units***					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	33	34	9.9	4.0	6.0
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.3	4.0 J	1.0 U	1.0 U	0.69 J
1,1-Dichloroethene	ug/L	2.4 J	1.4 J	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.5 J	5.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	16	20
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U
Benzene	ug/L	0.65 J	0.67 J	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	0.71 J	5.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	2.3 J	2.6 J	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.1 J	5.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	160	120	42	37	39
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	38	9.3	24	27	19
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	380	240	80	71	72
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

		Bed Rock Unit				
	Sample Location:	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A
	Sample ID:	GW-021011-EAH-021	GW-101211-SAG-007	GW-013926-041316-MRB-009	GW-013926-101916-SAG-009	GW-013926-041917-SAG-006
	Sample Date:	2/10/2011	10/12/2011	4/13/2016	10/19/2016	4/19/2017
Parameters	***Units***					
Metals						
Arsenic	mg/L	0.0500 U	0.0500 U	0.000367 J	0.000282 J	0.000248 J
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-
Barium	mg/L	0.184	0.199	0.12	0.115	0.112
Barium (dissolved)	mg/L	0.171	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.00116	0.000902	0.000809
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-
Chromium	mg/L	0.0008 J	0.0017 J	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-
Copper	mg/L	0.0100 U	0.0015 J	0.00219	0.000877 J	0.000727 J
Copper (dissolved)	mg/L	0.0100 U	-	-	-	-
Iron	mg/L	7.62	14.0	0.191	0.0728 J	-
Iron (dissolved)	mg/L	5.25	-	-	-	0.00824 J
Lead	mg/L	0.0100 U	0.0029 J	0.00034 J	0.001 U	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-
Manganese	mg/L	5.24	4.85	-	2.01	-
Manganese (dissolved)	mg/L	4.97	-	-	-	2.22
Selenium	mg/L	0.0200 U	0.0200 U	0.000652 J	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-	-
Dissolved Gas						
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	200	180	41	4.0 U	4.0 U
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	49.4	38.1	25.0	20.0	20.0
Ammonia	mg/L	0.174 J	0.370	0.020 U	0.020 U	0.020 U
Chloride	mg/L	18	15	14	12	11
Ferrous iron	mg/L	5.50 J	-	-	-	
Nitrate (as N)	mg/L	0.25 U	0.25 U	0.48	0.51	0.29
Orthophosphate	mg/L	-	0.0100 U	0.0143	0.0162	0.0197
Sulfate	mg/L	6.6	7.1	4.1	4.1	4.4
Total organic carbon (TOC)	mg/L	0.482 J	2.00	1.52	1.00 U	1.20
Field Parameters						
pH	S.U	5.43	5.91	5.58	5.71	5.67
DO	mg/L	0	1.46	3.67	0.0	0.0
ORP	mv	249	54	-	278	1.94

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit

Attachments

Attachment A
Low-Flow & Multi-Volume Purging
April 2017 Monitoring Event

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 19, 2017

Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-3**

Measured Well Depth (ft): 50.1

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 1.06

Purging/Sampling Data:

Purging/Sampling Device: bladder pump

Depth to Pump Intake (ft)[1]: 47.5

Initial Depth to Water (ft): 43.45

Total Volume Purged (gal): 1

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
15:10	75	43.55	0.10	15.44	0.255	18.3	0.18	5.61	146
15:15	75	43.55	0.10	15:44	0.259	17.4	0.00	5.63	148
15:20	75	43.55	0.10	15.45	0.255	6.03	0.00	5.61	145
15:25	75	43.55	0.10	15.47	0.256	4.03	0.00	5.61	144
15:30	75	43.55	0.10	15.56	0.256	2.64	0.00	5.61	145
	Sample Time		15:45						
	Sample ID		**GW-013926-041917-DJB-108**						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 20, 2017
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-4**
Measured Well Depth (ft): 19.8
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 0.70

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 17.5
Initial Depth to Water (ft): 15.40
Total Volume Purged (gal): 0.95

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
9:55	120	15.42	0.02	15.52	0.167	0.00	0.00	5.53	337
10:00	120	15.42	0.02	15.14	0.168	0.00	0.00	5.51	344
10:05	120	15.42	0.02	15.13	0.169	0.00	0.00	5.51	351
10:10	120	15.42	0.02	15.16	0.169	0.00	0.00	5.52	358
10:15	120	15.42	0.02	15.16	0.169	0.00	0.00	5.51	359
	Sample Time		10:45						
	Sample ID		**GW-013926-042017-DJB-110**						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 20, 2017
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-4A**
Measured Well Depth (ft): 67.4
Screen Length (ft): unknown
Well Diameter, D (in): 6
Total Volume in Well (gal): 86.42

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 62.5
Initial Depth to Water (ft): 13.39
Total Volume Purged (gal): 1

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
8:45	110	13.63	0.24	14.31	0.099	11.9	0.00	7.17	185
8:50	110	13.67	0.28	14.37	0.098	8.54	0.00	7.17	188
8:55	110	13.67	0.28	14.45	0.098	5.16	0.00	7.16	194
9:00	110	13.67	0.28	14.56	0.098	0.00	0.00	7.15	202
9:05	110	13.68	0.29	14.70	0.098	0.00	0.00	7.14	207
	Sample Time		9:35						
	Sample ID		GW-013926-042017-DJB-109						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

MULTI-VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 19, 2017
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-7A**
Measured Well Depth (ft): 71.25
Screen Length (ft): 10
Well Diameter (in): 2
Total Volume in Well (gal): 6.80
Total Volume Purged (gal): 7.50

Purging/Sampling Data:

Purging/Sampling Device: Bladder Pump
Depth to Pump at the start (ft)[1]: 31
Depth to Pump at the end (ft)[1]: 70
Initial Depth to Water (ft): 28.90
Start/End Purge Time: 8:15/8:45
Final Purge Rate (gal/min)[2]: 0.16

Volume Purged (gal)	*Depth to Water (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
	Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
7.0	NM	18.31	0.286	8.68	0.76	7.44	-121
7.5	DRY, sampled after recharge						
	Sample Time		14:15				
	Sample ID		**GW-013926-041917-DJB-107**				
			Analysis				
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total Metals, TOC, Alkalinity						

Notes:

(1) The pump intake should be within one foot in the top of the standing water column, then can be lowered as needed to accommodate the drawdown. It is advised that the intake not be lowered more than three to five feet into the water column.

(2) It is recommended to set the pumping rate at a lower rate not to exceed 500 mL/min to avoid pumping the well dry if possible.

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameters' precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 20, 2017
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-10A**
Measured Well Depth (ft): 52.9
Screen Length (ft): unknown
Well Diameter, D (in): 6
Total Volume in Well (gal): 69.12

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 46
Initial Depth to Water (ft): 9.70
Total Volume Purged (gal): 0.95

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
11:10	120	9.83	0.13	16.20	0.195	17.1	0.00	7.85	-32
11:15	120	9.83	0.13	16.22	0.195	18.6	0.00	7.86	-33
11:20	120	9.84	0.14	16.32	0.196	15.3	0.00	7.85	-34
11:25	120	9.84	0.14	16.43	0.196	17.2	0.00	7.86	-37
	Sample Time		12:00						
	Sample ID		GW-013926-042017-DJB-111						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 19, 2017
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-11**
Measured Well Depth (ft): 51.9
Screen Length (ft): 15
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.82

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 46
Initial Depth to Water (ft): 40.53
Total Volume Purged (gal): 0.65

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
15:10	70	40.57	0.04	16.23	0.046	114	1.56	5.38	190
15:15	70	40.59	0.06	16.20	0.046	81.7	1.30	5.39	206
15:20	70	40.60	0.07	16.17	0.046	78.2	1.26	5.39	209
15:25	70	40.60	0.07	16.23	0.046	69.3	1.25	5.40	214
15:30	70	40.61	0.08	16.28	0.046	56.8	1.30	5.41	217
15:35	70	40.62	0.09	16.30	0.045	47.3	1.28	5.38	221
15:40	70	40.62	0.09	16.35	0.045	44.1	1.29	5.36	223
15:45	70	40.62	0.09	16.47	0.045	41.0	1.31	5.37	225
	Sample Time		15:50						
	Sample ID		**GW-013926-041917-SAG-007**						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 19, 2017

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-11A**

Measured Well Depth (ft): 130

Screen Length (ft): 25

Well Diameter, D (in): 4

Total Volume in Well (gal): 63.09

Purging/Sampling Data:

Purging/Sampling Device: bladder pump

Depth to Pump Intake (ft)[1]: 117

Initial Depth to Water (ft): 34.41

Total Volume Purged (gal): 0.9

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
13:40	75	34.44	0.03	17.08	0.104	82.7	2.57	6.31	110
13:45	75	34.44	0.03	17.07	0.105	78.6	0.92	6.07	127
13:50	75	34.44	0.03	16.95	0.106	50.9	0.00	5.80	143
13:55	75	34.44	0.03	16.89	0.107	34.1	0.00	5.74	169
14:00	75	34.44	0.03	16.77	0.107	38.0	0.00	5.72	180
14:05	75	34.44	0.03	16.79	0.107	41.8	0.00	5.69	182
14:10	75	34.44	0.03	16.72	0.107	37.6	0.00	5.67	186
14:15	75	34.44	0.03	16.65	0.108	33.0	0.00	5.65	191
14:20	75	34.44	0.03	16.58	0.109	30.4	0.00	5.66	192
14:25	75	34.44	0.03	16.53	0.109	31.9	0.00	5.67	194
	Sample Time		14:30						
	Sample ID		GW-013926-041917-SAG-006						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 18, 2017
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-12**
Measured Well Depth (ft): 41
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.11

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 38
Initial Depth to Water (ft): 34.07
Total Volume Purged (gal): 1.07

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
16:45	90	34.07	0.00	17.66	0.080	330	0.06	5.61	376
16:50	90	34.07	0.00	17.54	0.079	94.3	0.00	5.67	376
16:55	90	34.07	0.00	17.44	0.079	26.2	0.00	5.66	378
17:00	90	34.07	0.00	17.25	0.079	33.1	0.00	5.66	381
17:05	90	34.07	0.00	17.17	0.079	24.9	0.00	5.66	384
	Sample Time		17:15						
	Sample ID		**GW-013926-041817-DJB-105**						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 18, 2017

Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-13**

Measured Well Depth (ft): 89.5

Screen Length (ft): 28

Well Diameter, D (in): 6

Total Volume in Well (gal): 43.20

Purging/Sampling Data:

Purging/Sampling Device: bladder pump

Depth to Pump Intake (ft)[1]: 76

Initial Depth to Water (ft): 62.50

Total Volume Purged (gal): 1.16

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
13:35	125	62.50	0.00	15.60	0.121	0.00	0.00	4.39	319
13:40	125	62.50	0.00	15.57	0.123	0.00	0.00	4.39	319
13:45	125	62.50	0.00	15.52	0.125	0.00	0.00	4.40	320
13:50	125	62.51	0.01	15.48	0.126	0.00	0.00	4.42	321
	Sample Time		14:00						
	Sample ID		GW-013926-041817-DJB-103						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 18, 2017
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-14**
Measured Well Depth (ft): 53.6
Screen Length (ft): 15
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.25

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 50
Initial Depth to Water (ft): 45.81
Total Volume Purged (gal): 1.32

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
9:00	100	45.83	0.02	16.36	0.093	405	2.96	5.82	351
9:15	100	45.84	0.03	16.34	0.092	295	2.83	5.83	351
9:20	100	45.84	0.03	16.25	0.092	85.2	2.62	5.83	356
9:25	100	45.84	0.03	16.22	0.092	76.7	2.40	5.83	358
9:30	100	45.84	0.03	16.17	0.092	46.1	2.49	5.86	365
9:35	100	45.84	0.03	16.16	0.092	35.1	2.50	5.85	366
9:40	100	45.84	0.03	16.16	0.092	32.8	2.51	5.85	368
9:45	100	45.84	0.03	16.17	0.092	28.4	2.46	5.85	370
	Sample Time		10:00						
	Sample ID		**GW-013926-041817-DJB-101**						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 18, 2017

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-27**

Measured Well Depth (ft): 52.2

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 2.40

Purging/Sampling Data:

Purging/Sampling Device: bladder pump

Depth to Pump Intake (ft)[1]: 47

Initial Depth to Water (ft): 37.18

Total Volume Purged (gal): 0.83

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
8:35	70	37.24	0.06	18.46	0.234	0.00	3.39	8.18	161
8:40	70	37.27	0.09	18.50	0.218	0.00	2.24	5.94	195
8:45	70	37.27	0.09	18.40	0.216	0.00	1.79	5.92	203
8:50	70	37.28	0.10	18.31	0.214	0.00	1.51	5.89	209
8:55	70	37.28	0.10	18.29	0.212	0.00	1.33	5.89	211
9:00	70	37.28	0.10	18.31	0.211	0.00	1.40	5.91	211
9:05	70	37.28	0.10	18.32	0.209	0.00	1.25	5.92	213
9:10	70	37.28	0.10	18.35	0.208	0.00	1.21	5.92	213
9:15	70	37.28	0.10	18.40	0.207	0.00	1.19	5.91	215
9:20	70	37.28	0.10	18.44	0.207	0.00	1.17	5.91	214
	Sample Time		9:25						
	Sample ID		**GW-013926-041817-SAG-001**						
			Analysis						
	VOCs, EDB, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, total metals, dissolved metals								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 18, 2017
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-28**
Measured Well Depth (ft): 52.35
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.39

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 47
Initial Depth to Water (ft): 37.41
Total Volume Purged (gal): 0.93

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
10:20	70	37.48	0.07	18.98	0.219	360	3.08	5.64	231
10:25	70	37.49	0.08	18.63	0.217	486	2.45	5.54	240
10:30	70	37.49	0.08	18.50	0.218	226	1.92	5.56	245
10:35	70	37.50	0.09	18.56	0.220	149	1.75	5.59	247
10:40	70	37.50	0.09	18.51	0.223	202	1.60	5.71	236
10:45	70	37.50	0.09	18.48	0.225	233	1.46	5.92	228
10:50	70	37.50	0.09	18.46	0.228	278	1.54	5.99	226
10:55	70	37.50	0.09	18.46	0.229	223	1.43	6.00	226
11:00	70	37.50	0.09	18.38	0.234	127	1.32	6.00	227
11:05	70	37.50	0.09	18.36	0.237	122	1.30	5.98	229
11:10	70	37.50	0.09	18.38	0.239	139	1.28	6.00	227
	Sample Time		11:15						
	Sample ID		**GW-013926-041817-SAG-002**						
			Analysis						
	VOCs, EDB, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, Dissolved metals								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 18, 2017
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-32**
Measured Well Depth (ft): 52.74
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.33

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 48
Initial Depth to Water (ft): 38.15
Total Volume Purged (gal): 0.7

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
13:10	75	38.20	0.05	17.55	0.166	258	5.06	5.71	179
13:15	75	38.21	0.06	17.60	0.164	239	4.30	5.65	190
13:20	75	38.22	0.07	17.67	0.163	245	3.86	5.64	192
13:25	75	38.22	0.07	17.69	0.162	208	3.59	5.63	190
13:30	75	38.22	0.07	17.71	0.161	191	3.44	5.62	187
13:35	75	38.22	0.07	17.89	0.160	165	3.40	5.60	190
13:40	75	38.22	0.07	18.00	0.159	157	3.39	5.60	192
13:45	75	38.22	0.07	18.06	0.159	153	3.36	5.61	194
	Sample Time		13:50						
	Sample ID		**GW-013926-041817-SAG-003**						
			Analysis						
	VOCs, EDB, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, Dissolved metals								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 20, 2017
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-35**
Measured Well Depth (ft): 54.6
Screen Length (ft): 15
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.11

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 49.5
Initial Depth to Water (ft): 41.42
Total Volume Purged (gal): 0.93

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
8:50	70	41.51	0.09	15.90	0.128	115	4.76	5.84	172
8:55	70	41.54	0.12	15.91	0.128	88.2	2.53	5.24	207
9:00	70	41.57	0.15	15.95	0.128	81.9	1.69	5.15	213
9:05	70	41.59	0.17	16.00	0.128	89.9	1.39	5.13	212
9:10	70	41.61	0.19	16.08	0.128	65.7	1.19	5.08	210
9:15	70	41.63	0.21	16.21	0.127	52.0	0.87	5.06	206
9:20	70	41.64	0.22	16.30	0.128	52.1	0.70	5.07	205
9:25	70	41.66	0.24	16.45	0.128	45.3	0.44	5.07	204
9:30	70	41.67	0.25	16.56	0.128	40.8	0.38	5.06	204
9:35	70	41.68	0.26	16.71	0.128	34.1	0.30	5.05	204
9:40	70	41.69	0.27	16.90	0.128	32.5	0.36	5.05	204
	Sample Time		9:50, 10:00						
	Sample ID		**GW-013926-042017-SAG-008 & -009 (DUPLICATE)**						
			MS/MDS						
			Analysis						
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, TOC, Alkalinity, MS/MSD (-008 only)								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 13926

Date: April 18, 2017

Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-39**

Measured Well Depth (ft): 56.91

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 2.78

Purging/Sampling Data:

Purging/Sampling Device: bladder pump

Depth to Pump Intake (ft)[1]: 52

Initial Depth to Water (ft): 39.55

Total Volume Purged (gal): 0.6

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
14:55	65	39.62	0.07	18.08	0.098	249	6.50	4.68	274
15:00	65	39.66	0.11	18.03	0.097	259	6.33	4.75	275
15:05	65	39.66	0.11	17.96	0.096	217	6.06	4.72	283
15:10	65	39.68	0.13	17.92	0.096	183	5.96	4.70	286
15:15	65	39.69	0.14	17.89	0.096	175	5.77	4.70	289
15:20	65	39.71	0.16	17.88	0.097	167	5.70	4.69	291
15:25	65	39.74	0.19	17.93	0.099	164	5.69	4.70	291
15:30	65	39.75	0.20	17.91	0.101	159	5.64	4.71	292
	Sample Time		15:35						
	Sample ID		**GW-013926-041817-SAG-004**						
			Analysis						
	VOCs, EDB, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, Dissolved metals								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 18, 2017
Personnel: Steven Grace

Monitoring Well Data:

Well ID: **MW-40**
Measured Well Depth (ft): 56.84
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.93

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 52
Initial Depth to Water (ft): 44.80
Total Volume Purged (gal): 0.7

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
16:45	65	44.90	0.10	19.07	0.116	1000+	5.91	4.43	330
16:50	65	44.92	0.12	18.79	0.118	693	5.44	4.79	326
16:55	65	44.93	0.13	18.42	0.117	475	5.25	4.83	318
17:00	65	44.95	0.15	18.29	0.114	279	4.85	4.83	319
17:05	65	44.97	0.17	18.22	0.112	235	4.79	4.83	320
17:10	65	44.98	0.18	18.25	0.106	160	4.56	4.82	321
17:15	65	45.00	0.20	18.24	0.103	141	4.50	4.82	321
17:20	65	45.01	0.21	18.24	0.099	148	4.48	4.81	321
17:25	65	45.02	0.22	18.26	0.097	155	4.46	4.81	320
	Sample Time		17:30						
	Sample ID		**GW-013926-041817-SAG-005**						
			Analysis						
	VOCs, EDB, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total metals, Dissolved metals								

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

MULTI-VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 18, 2017
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-41**
Measured Well Depth (ft): 93.7
Screen Length (ft): 10
Well Diameter (in): 2
Total Volume in Well (gal): 3.00
Total Volume Purged (gal): 9.00

Purging/Sampling Data:

Purging/Sampling Device: Bladder Pump
Depth to Pump at the start (ft)[1]: 76
Depth to Pump at the end (ft)[1]: 80
Initial Depth to Water (ft): 74.90
Start/End Purge Time: 14:35/16:15
Final Purge Rate (gal/min)[2]: 0.16

Volume Purged (gal)	*Depth to Water (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
	Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
3.0	76.55	16.20	0.126	320	2.47	4.55	399
6.0	77.12	16.16	0.124	92.1	2.46	4.63	402
9.0	77.92	16.13	0.119	75.3	2.30	4.57	407
	Sample Time		16:00				
	Sample ID		**GW-013926-041817-DJB-104**				
			Analysis				
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total Metals, TOC, Alkalinity						

Notes:

(1) The pump intake should be within one foot in the top of the standing water column, then can be lowered as needed to accommodate the drawdown. It is advised that the intake not be lowered more than three to five feet into the water column.

(2) It is recommended to set the pumping rate at a lower rate not to exceed 500 mL/min to avoid pumping the well dry if possible.

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameters' precisions required, see the above listed.

MULTI-VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 19, 2017
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **MW-42**
Measured Well Depth (ft): 64
Screen Length (ft): 10
Well Diameter (in): 2
Total Volume in Well (gal): 3.20
Total Volume Purged (gal): 10.00

Purging/Sampling Data:

Purging/Sampling Device: Bladder Pump
Depth to Pump at the start (ft)[1]: 47
Depth to Pump at the end (ft)[1]: 56
Initial Depth to Water (ft): 44.42
Start/End Purge Time: 10:40/13:15
Final Purge Rate (gal/min)[2]: 0.16

Volume Purged (gal)	*Depth to Water (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
	Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
3.25	52.11	15.21	0.152	95.2	4.69	6.07	175
6.5	54.06	15.28	0.154	106	0.00	6.07	162
10.0	54.66	15.29	0.156	116	0.00	6.07	161
	Sample Time		13:00				
	Sample ID		**GW-013926-041917-DJB-106**				
			Analysis				
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total Metals, TOC, Alkalinity						

Notes:

(1) The pump intake should be within one foot in the top of the standing water column, then can be lowered as needed to accommodate the drawdown. It is advised that the intake not be lowered more than three to five feet into the water column.

(2) It is recommended to set the pumping rate at a lower rate not to exceed 500 mL/min to avoid pumping the well dry if possible.

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameters' precisions required, see the above listed.

MULTI-VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 13926

Date: April 18, 2017
Personnel: David Brytowski

Monitoring Well Data:

Well ID: **TW-2**
Measured Well Depth (ft): 59
Screen Length (ft): 15
Well Diameter (in): 2
Total Volume in Well (gal): 1.75
Total Volume Purged (gal): 5.25

Purging/Sampling Data:

Purging/Sampling Device: Bladder Pump
Depth to Pump at the start (ft)[1]: 54
Depth to Pump at the end (ft)[1]: 58
Initial Depth to Water (ft): 48.02
Start/End Purge Time: 10:15/11:30
Final Purge Rate (gal/min)[2]: 0.16

Volume Purged (gal)	*Depth to Water (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
	Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
1.75	55.02	16.11	0.089	51.9	0.00	5.24	289
3.50	55.78	16.09	0.088	70.1	0.00	5.20	300
5.25	56.03	16.05	0.086	73.9	0.00	5.22	309
	Sample Time		11:15				
	Sample ID		**GW-013926-041817-DJB-102**				
			Analysis				
	VOCs, EDB, Dissolved Gasses, 1,4 Dioxane, Ions, Ammonia, Orthophosphate, Total Metals, TOC, Alkalinity						

Notes:

(1) The pump intake should be within one foot in the top of the standing water column, then can be lowered as needed to accommodate the drawdown. It is advised that the intake not be lowered more than three to five feet into the water column.

(2) It is recommended to set the pumping rate at a lower rate not to exceed 500 mL/min to avoid pumping the well dry if possible.

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameters' precisions required, see the above listed.

Attachment B

Sample Keys, Data Quality Assessment, Validation Memorandums, Analytical Data Reports

April 2017 Post-Injection Groundwater Sampling

Memorandum

May 9, 2017

To:	Terefe Mazengia	Ref. No.:	013926
	Pm		
From:	Paul McMahon/adh/29	Tel:	716-205-1970

Subject: **Analytical Results and Reduced Validation**
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in support of the Semiannual Groundwater Sampling Program at the Greer, South Carolina Site during April 2017. Samples were submitted to Analytical Environmental Services, Inc. (AES) located in Atlanta, Georgia. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodologies is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS), and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", United States Environmental Protection Agency (USEPA) 540-R-10-011, January 2010

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Most method blank results were non-detect. Low levels of metals were detected in some method blanks. All investigative sample results that were similar to the blank concentrations were qualified as non-detect (see Table 4).

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compounds (VOCs) and ethylene dibromide (EDB) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All recoveries were acceptable except for one high EDB surrogate recovery. The associated sample result was non-detect and was not impacted by the indicated high bias.

5. Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

5.1 Organic Analyses

The LCS/LCSD contained all compounds of interest. All LCS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

5.2 Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with known concentrations of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

If only the MS recovery was high, no qualification of the data was performed based on the acceptable MSD and RPD.

MS/MSD analyses were performed as specified in Table 1. The laboratory performed additional site-specific MS/MSD analyses internally.

6.1 Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits or met the above criteria, demonstrating acceptable analytical accuracy and precision.

6.2 Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

7. Duplicate Sample Analyses – Inorganic Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

8. Field QA/QC Samples

The field QA/QC consisted of five trip blank samples and one field duplicate sample set.

8.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, five trip blanks were submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

8.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, two field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

Most field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision. Data which did indicate variability were qualified as estimated (see Table 5).

9. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

10. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Sample Identification	Location	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters												Comments
				TCL VOCs + TMBs	TCL VOCs	1,4-Dioxane	Dissolved Gases	EDB	Ammonia	Alkalinity	Metals	Chloride	Nitrate, Sulfate	Orthophosphate	TOC	
GW-013926-041817SAG-001	MW-27	04/18/2017	9:25		X	X		X	X		X		X	X		
GW-013926-041817SAG-002	MW-28	04/18/2017	11:15		X	X		X	X		X		X	X		
GW-013926-041817SAG-003	MW-30	04/18/2017	13:50		X	X		X	X		X		X	X		
GW-013926-041817SAG-004	MW-39	04/18/2017	15:35		X	X		X	X		X		X	X		
GW-013926-041817SAG-005	MW-40	04/18/2017	17:30		X	X		X	X		X		X	X		
GW-013926-041917SAG-006	MW-11A	04/19/2017	14:30	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-041917SAG-007	MW-11	04/19/2017	15:15	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-042017SAG-008	MW-35	04/20/2017	9:50	X		X	X	X	X	X	X	X	X	X	X	MS/MSD/DUP
GW-013926-042017SAG-009	MW-35	04/20/2017	10:00	X		X	X	X	X	X	X	X	X	X	X	Duplicate of GW-013926-042017SAG-008
GW-013926-041817-DJB-101	MW-14	04/18/2017	10:00	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-041817-DJB-102	TW-2	04/18/2017	11:15	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-041817-DJB-103	MW-13	04/18/2017	14:00	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-041817-DJB-104	MW-41	04/18/2017	16:00	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-041817-DJB-105	MW-12	04/18/2017	17:15	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-041917-DJB-106	MW-42	04/19/2017	13:00	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-041917-DJB-107	MW-7A	04/19/2017	14:15	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-041917-DJB-108	MW-3	04/19/2017	15:45	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-042017-DJB-109	MW-4A	04/20/2017	9:35	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-042017-DJB-110	MW-4	04/20/2017	10:45	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-042017-DJB-111	MW-10A	04/20/2017	12:00	X		X	X	X	X	X	X	X	X	X	X	

Notes:

EDB - Ethylene Dibromide
TCL - Target Compound List
TMBs - Trimethylbenzenes
TOC - Total Organic Carbon
VOCs - Volatile Organic Compounds
DUP - Laboratory Duplicate
MS/MSD - Matrix Spike/Matrix Spike Duplicate

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-3	MW-4	MW-4A	MW-7A
Sample Name:		GW-013926-041917-DJB-108	GW-013926-042017-DJB-110	GW-013926-042017-DJB-109	GW-013926-041917-DJB-107
Sample Date:		04/19/2017	04/20/2017	04/20/2017	04/19/2017
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	54	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	29	1.1	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	3.5	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	14	4.3	1.3	1.2
1,1-Dichloroethene	µg/L	6.8	2.9	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	2.4	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	2.1	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.3	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	2.0	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	180	29	2.0	43
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	2.2	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	6.4	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.8	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	5.9	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	250	34	12	1.4
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-3	MW-4	MW-4A	MW-7A
Sample Name:		GW-013926-041917-DJB-108	GW-013926-042017-DJB-110	GW-013926-042017-DJB-109	GW-013926-041917-DJB-107
Sample Date:		04/19/2017	04/20/2017	04/20/2017	04/19/2017
Parameters	**Unit**				
Volatile Organic Compounds-Continued					
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.3 J	5.0 U	2.1 J	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	160	11	7.0	1.0 U
Toluene	µg/L	1.0 U	1.0 U	0.58 J	1.0 U
trans-1,2-Dichloroethene	µg/L	3.2	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	36	25	4.3	1.4
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	30	1.0 U	1.0 U	1.5
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U
Metals					
Aluminum	µg/L	--	--	--	--
Antimony	µg/L	--	--	--	--
Arsenic	µg/L	1.31 J	0.199 J	5.00 U	0.802 J
Barium	µg/L	268	138	15.5	81.1
Beryllium	µg/L	--	--	--	--
Cadmium	µg/L	0.246 J	0.700 U	0.700 U	0.213 J
Calcium	µg/L	--	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Cobalt	µg/L	--	--	--	--
Copper	µg/L	0.256 J	0.280 J	0.721 J	0.930 J
Iron	µg/L	--	--	--	--
Iron (dissolved)	µg/L	6000	9.87 J	14.6 J	305
Lead	µg/L	1.00 U	1.00 U	2.11	0.317 J
Magnesium	µg/L	--	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-3	MW-4	MW-4A	MW-7A
Sample Name:		GW-013926-041917-DJB-108	GW-013926-042017-DJB-110	GW-013926-042017-DJB-109	GW-013926-041917-DJB-107
Sample Date:		04/19/2017	04/20/2017	04/20/2017	04/19/2017
Parameters	**Unit**				
Metals-Continued					
Manganese	µg/L	--	--	--	--
Manganese (dissolved)	µg/L	10800	2120	1.66 J	186
Mercury	mg/L	--	--	--	--
Nickel	µg/L	--	--	--	--
Potassium	µg/L	--	--	--	--
Selenium	µg/L	0.285 J	5.00 U	0.396 J	5.00 U
Silver	µg/L	--	--	--	--
Sodium	µg/L	--	--	--	--
Thallium	µg/L	--	--	--	--
Vanadium	µg/L	--	--	--	--
Zinc	µg/L	--	--	--	--
Dissolved Gases					
Ethane	µg/L	4.3 J	9.0 U	9.0 U	9.0 U
Ethene	µg/L	3.6 J	7.0 U	7.0 U	5.6 J
Methane	µg/L	210	6.7	4.0 U	2600
General Chemistry					
Alkalinity, total (as $CaCO_3$)	mg/L	30.0	34.0	35.0	188
Ammonia	mg/L	0.065	0.020	0.020 U	3.79
Chloride	mg/L	34	6.0	1.6	5.0
Nitrate (as N)	mg/L	0.25 U	3.8	0.056 J	0.25 U
Orthophosphate	mg/L	0.0100 U	0.0261	0.0172	0.187
Sulfate	mg/L	15	11	7.2	5.8
Total organic carbon (TOC)	mg/L	10.1	2.53	1.00 U	3.84

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-10A	MW-11	MW-11A	MW-12
Sample Name:		GW-013926-042017-DJB-111	GW-013926-041917-SAG-007	GW-013926-041917-SAG-006	GW-013926-041817-DJB-105
Sample Date:		04/20/2017	04/19/2017	04/19/2017	04/18/2017
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	2.1	6.0	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	0.69 J	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	1.4 J	4.2	20	12
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.2	6.8	39	14
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-10A	MW-11	MW-11A	MW-12
Sample Name:		GW-013926-042017-DJB-111	GW-013926-041917-SAG-007	GW-013926-041917-SAG-006	GW-013926-041817-DJB-105
Sample Date:		04/20/2017	04/19/2017	04/19/2017	04/18/2017
Parameters	**Unit**				
Volatile Organic Compounds-Continued					
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	7.7	19	28
Toluene	µg/L	0.55 J	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	1.0 U	19	72	49
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.5	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U
Metals					
Aluminum	µg/L	--	--	--	--
Antimony	µg/L	--	--	--	--
Arsenic	µg/L	2.38 J	0.287 J	0.248 J	5.00 U
Barium	µg/L	40.1	59.6	112	109
Beryllium	µg/L	--	--	--	--
Cadmium	µg/L	0.700 U	0.372 J	0.809	0.700 U
Calcium	µg/L	--	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U	4.64 J
Cobalt	µg/L	--	--	--	--
Copper	µg/L	0.314 J	0.465 J	0.727 J	2.00 U
Iron	µg/L	--	--	--	--
Iron (dissolved)	µg/L	782	67.0 J	8.24 J	63.8 J
Lead	µg/L	0.900 J	1.00 U	1.00 U	1.00 U
Magnesium	µg/L	--	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-10A	MW-11	MW-11A	MW-12
Sample Name:		GW-013926-042017-DJB-111	GW-013926-041917-SAG-007	GW-013926-041917-SAG-006	GW-013926-041817-DJB-105
Sample Date:		04/20/2017	04/19/2017	04/19/2017	04/18/2017
Parameters	**Unit**				
Metals-Continued					
Manganese	µg/L	--	--	--	--
Manganese (dissolved)	µg/L	1300	471	2220	76.6
Mercury	mg/L	--	--	--	--
Nickel	µg/L	--	--	--	--
Potassium	µg/L	--	--	--	--
Selenium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Silver	µg/L	--	--	--	--
Sodium	µg/L	--	--	--	--
Thallium	µg/L	--	--	--	--
Vanadium	µg/L	--	--	--	--
Zinc	µg/L	--	--	--	--
Dissolved Gases					
Ethane	µg/L	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	µg/L	7.0 U	7.0 U	7.0 U	7.0 U
Methane	µg/L	150	14	4.0 U	4.0 U
General Chemistry					
Alkalinity, total (as $CaCO_3$)	mg/L	78.0	12.0	20.0	9.00
Ammonia	mg/L	1.12	0.020 U	0.020 U	0.020 U
Chloride	mg/L	1.0	6.7	11	9.2
Nitrate (as N)	mg/L	0.056 J	0.33	0.29	1.5
Orthophosphate	mg/L	0.0602	0.00637 J	0.0197	0.0384
Sulfate	mg/L	7.5	0.62 J	4.4	2.6
Total organic carbon (TOC)	mg/L	1.10	1.89	1.20	1.15

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-13	MW-14	MW-27	MW-28
Sample Name:		GW-013926-041817-DJB-103	GW-013926-041817-DJB-101	GW-013926-041817-SAG-001	GW-013926-041817-SAG-002
Sample Date:		04/18/2017	04/18/2017	04/18/2017	04/18/2017
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.6	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	7.3	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	6.8	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	1.0 U	--	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	1.0 U	--	--
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	56	1.6 J	1.0 J	0.60 J
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	2.3	1.0 U	1.0 U	0.64 J
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	130	1.0 U	1.1	1.2
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-13	MW-14	MW-27	MW-28
Sample Name:		GW-013926-041817-DJB-103	GW-013926-041817-DJB-101	GW-013926-041817-SAG-001	GW-013926-041817-SAG-002
Sample Date:		04/18/2017	04/18/2017	04/18/2017	04/18/2017
Parameters	**Unit**				
Volatile Organic Compounds-Continued					
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.4	1.5
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	35	1.0 U	310	470
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	190	1.0 U	2.4	2.7
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	4.0 J	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.1	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U
Metals					
Aluminum	µg/L	--	--	1000	3020
Antimony	µg/L	--	--	0.363 J	5.00 U
Arsenic	µg/L	0.439 J	5.00 U	3.61 J	7.27
Barium	µg/L	80.6	46.4	112	395
Beryllium	µg/L	--	--	0.215 J	0.636 J
Cadmium	µg/L	0.700 U	0.700 U	0.457 J	0.156 J
Calcium	µg/L	--	--	1950	1530
Chromium	µg/L	5.00 U	5.00 U	4.38 J	7.50
Cobalt	µg/L	--	--	1.56 J	1.98 J
Copper	µg/L	2.00 U	2.00 U	5.47	2.00 U
Iron	µg/L	--	--	238	1340
Iron (dissolved)	µg/L	100 U	386	100 U	100 U
Lead	µg/L	1.00 U	0.336 J	0.560 J	1.49
Magnesium	µg/L	--	--	822	819

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-13	MW-14	MW-27	MW-28
Sample Name:		GW-013926-041817-DJB-103	GW-013926-041817-DJB-101	GW-013926-041817-SAG-001	GW-013926-041817-SAG-002
Sample Date:		04/18/2017	04/18/2017	04/18/2017	04/18/2017
Parameters	**Unit**				
Metals-Continued					
Manganese	µg/L	--	--	319	120
Manganese (dissolved)	µg/L	20.1	5.33	35.9	14.3
Mercury	mg/L	--	--	0.00020 U	0.00020 U
Nickel	µg/L	--	--	2.43 J	3.28 J
Potassium	µg/L	--	--	1280	1540
Selenium	µg/L	5.00 U	0.531 J	0.392 J	5.00 U
Silver	µg/L	--	--	1.00 U	1.00 U
Sodium	µg/L	--	--	40500	56200
Thallium	µg/L	--	--	1.00 U	1.00 U
Vanadium	µg/L	--	--	42.7	64.0
Zinc	µg/L	--	--	26.6	21.8
Dissolved Gases					
Ethane	µg/L	9.0 U	9.0 U	--	--
Ethene	µg/L	7.0 U	7.0 U	--	--
Methane	µg/L	2.4 J	4.0 U	--	--
General Chemistry					
Alkalinity, total (as $CaCO_3$)	mg/L	31.0	18.0	--	--
Ammonia	mg/L	0.020 U	0.020 U	0.033	0.020 U
Chloride	mg/L	13	1.9	--	--
Nitrate (as N)	mg/L	0.74	1.6	4.8	5.2
Orthophosphate	mg/L	0.169	0.0146	4.87	11.3
Sulfate	mg/L	1.0	14	8.9	9.5
Total organic carbon (TOC)	mg/L	1.36	0.579 J	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-30	MW-35	MW-35	MW-39
Sample Name:		GW-013926-041817-SAG-003	GW-013926-042017-SAG-008	GW-013926-042017-SAG-009	GW-013926-041817-SAG-004
Sample Date:		04/18/2017	04/20/2017	04/20/2017	04/18/2017
				Duplicate	
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	7.8	7.5	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0	0.95 J	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	--
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	0.94 J	12	16	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	0.79 J	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	2.0	27	27	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-30	MW-35	MW-35	MW-39
Sample Name:		GW-013926-041817-SAG-003	GW-013926-042017-SAG-008	GW-013926-042017-SAG-009	GW-013926-041817-SAG-004
Sample Date:		04/18/2017	04/20/2017	04/20/2017	04/18/2017
				Duplicate	
Parameters	**Unit**				
Volatile Organic Compounds-Continued					
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.2	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	680	8.6	8.8	64
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	4.4	79	80	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U
Metals					
Aluminum	µg/L	522	--	--	634
Antimony	µg/L	5.00 U	--	--	5.00 U
Arsenic	µg/L	0.511 J	5.00 U	0.169 J	5.00 U
Barium	µg/L	89.9	196	208	247
Beryllium	µg/L	0.176 J	--	--	0.385 J
Cadmium	µg/L	0.700 U	0.586 J	0.674 J	1.20
Calcium	µg/L	2850	--	--	933
Chromium	µg/L	7.12	5.00 U	5.00 U	3.65 J
Cobalt	µg/L	1.12 J	--	--	3.35 J
Copper	µg/L	2.00 U	3.79	5.08	5.73
Iron	µg/L	559	--	--	447
Iron (dissolved)	µg/L	100 U	92.1 J	211 J	100 U
Lead	µg/L	0.690 J	0.373 J	0.415 J	1.98
Magnesium	µg/L	1120	--	--	3090

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-30	MW-35	MW-35	MW-39
Sample Name:		GW-013926-041817-SAG-003	GW-013926-042017-SAG-008	GW-013926-042017-SAG-009	GW-013926-041817-SAG-004
Sample Date:		04/18/2017	04/20/2017	04/20/2017	04/18/2017
				Duplicate	
Parameters	**Unit**				
Metals-Continued					
Manganese	µg/L	22.9	--	--	30.5
Manganese (dissolved)	µg/L	8.65	288	286	23.6
Mercury	mg/L	0.00020 U	--	--	0.00020 U
Nickel	µg/L	1.38 J	--	--	1.94 J
Potassium	µg/L	1440	--	--	3510
Selenium	µg/L	5.00 U	0.367 J	0.306 J	5.00 U
Silver	µg/L	1.00 U	--	--	1.00 U
Sodium	µg/L	27300	--	--	9860
Thallium	µg/L	1.00 U	--	--	1.00 U
Vanadium	µg/L	4.08 J	--	--	5.00 U
Zinc	µg/L	18.6	--	--	28.5
Dissolved Gases					
Ethane	µg/L	--	9.0 U	9.0 U	--
Ethene	µg/L	--	7.0 U	7.0 U	--
Methane	µg/L	--	20 J	39 J	--
General Chemistry					
Alkalinity, total (as $CaCO_3$)	mg/L	--	6.00	6.00	--
Ammonia	mg/L	0.020 U	0.020 U	0.012 J	0.020 U
Chloride	mg/L	--	29	28	--
Nitrate (as N)	mg/L	5.3	0.27	0.27	4.6
Orthophosphate	mg/L	1.49	0.00524 J	0.00411 J	0.0351
Sulfate	mg/L	9.9	0.55 J	0.90 J	5.9
Total organic carbon (TOC)	mg/L	--	2.76	2.68	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-40	MW-41	MW-42	TW-2
Sample Name:		GW-013926-041817-SAG-005	GW-013926-041817-DJB-104	GW-013926-041917-DJB-106	GW-013926-041817-DJB-102
Sample Date:		04/18/2017	04/18/2017	04/19/2017	04/18/2017
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	0.66 J	2.1	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	0.96 J	14	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.4	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	24	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	1.6 J	35	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.4	2.0	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	0.57 J	7.9	330	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	0.64 J	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.5	15	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	2.4	210	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-40	MW-41	MW-42	TW-2
Sample Name:		GW-013926-041817-SAG-005	GW-013926-041817-DJB-104	GW-013926-041917-DJB-106	GW-013926-041817-DJB-102
Sample Date:		04/18/2017	04/18/2017	04/19/2017	04/18/2017
Parameters	**Unit**				
Volatile Organic Compounds-Continued					
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	1.8 J	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	8.4	8.2	80	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	1.0 U	7.5	270	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.5	4.6	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	13	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	2.1	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U
Metals					
Aluminum	µg/L	172	--	--	--
Antimony	µg/L	5.00 U	--	--	--
Arsenic	µg/L	0.329 J	0.547 J	0.350 J	0.157 J
Barium	µg/L	176	171	268	28.2
Beryllium	µg/L	0.296 J	--	--	--
Cadmium	µg/L	1.01	0.700 U	0.700 U	0.700 U
Calcium	µg/L	1200	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Cobalt	µg/L	7.92	--	--	--
Copper	µg/L	2.52	2.00 U	0.728 J	2.30
Iron	µg/L	80.0 J	--	--	--
Iron (dissolved)	µg/L	100 U	1270	1420	819
Lead	µg/L	1.16	0.368 J	0.467 J	0.287 J
Magnesium	µg/L	2270	--	--	--

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Location ID:		MW-40	MW-41	MW-42	TW-2
Sample Name:		GW-013926-041817-SAG-005	GW-013926-041817-DJB-104	GW-013926-041917-DJB-106	GW-013926-041817-DJB-102
Sample Date:		04/18/2017	04/18/2017	04/19/2017	04/18/2017
Parameters	**Unit**				
Metals-Continued					
Manganese	µg/L	514	--	--	--
Manganese (dissolved)	µg/L	452	128	53.2	275
Mercury	mg/L	0.00020 U	--	--	--
Nickel	µg/L	4.80 J	--	--	--
Potassium	µg/L	4570	--	--	--
Selenium	µg/L	0.617 J	5.00 U	0.282 J	5.00 U
Silver	µg/L	1.00 U	--	--	--
Sodium	µg/L	6860	--	--	--
Thallium	µg/L	0.510 J	--	--	--
Vanadium	µg/L	5.00 U	--	--	--
Zinc	µg/L	35.8	--	--	--
Dissolved Gases					
Ethane	µg/L	--	9.0 U	9.0 U	9.0 U
Ethene	µg/L	--	7.0 U	7.0 U	7.0 U
Methane	µg/L	--	4.0 U	6.7	25
General Chemistry					
Alkalinity, total (as $CaCO_3$)	mg/L	--	4.00	44.0	27.0
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	--	11	13	1.9
Nitrate (as N)	mg/L	2.4	1.3	1.1	1.2
Orthophosphate	mg/L	0.00647 J	0.212	0.0457	0.0853
Sulfate	mg/L	7.7	15	0.43 J	2.1
Total organic carbon (TOC)	mg/L	--	1.16	1.86	0.596 J

Notes:

J - Estimated concentration
U - Not present at or above the associated value
--

Table 3

Analytical Methods
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260B	Groundwater	14
1,4-Dioxane	SW-846 8260B (SIM)	Groundwater	14
Dissolved Gases	RSK 175	Groundwater	14
Ethylene Dibromide (EDB)	SW-846 8011	Groundwater	14
Total and Dissolved Metals	SW-846 6020B	Groundwater	180
Mercury	SW-846 7470A	Groundwater	28
Alkalinity	SM 2320 B	Groundwater	14
Total Organic Carbon (TOC)	SW-846 9060A	Groundwater	28
Nitrate	SW-846 9056A	Groundwater	48 hours
Sulfate, Chloride	SW-846 9056A	Groundwater	28
Orthophosphate	EPA 365.1	Groundwater	48 hours
Ammonia	EPA 350.1	Groundwater	28

Notes:

EPA - Referenced from "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986 with all subsequent revisions
RSK - "Analysis of Dissolved Methane, Ethane, and Ethylene in Ground Water by a Standard Gas Chromatographic Technique", Journal of Chromatographic Science, Vol. 36, May 1998
SW-846 - Referenced from "Methods for the Chemical Analysis of Water and Wastes", (MCAWW), USEPA-600/4-79-020, March 1983 and subsequent revisions
SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions
SIM - Selected Ion Monitoring

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Parameter	Analyte	Analysis Date	Blank Result	Sample ID	Original Result	Qualified Result	Units
Metals	Copper	04/20/2017	0.383 J	GW-013926-041817-DJB-101	1.00 J	2.00 U	µg/L
				GW-013926-041817-DJB-103	0.696 J	2.00 U	µg/L
				GW-013926-041817-DJB-104	1.49 J	2.00 U	µg/L
				GW-013926-041817-DJB-105	0.858 J	2.00 U	µg/L
				GW-013926-041817-SAG-002	1.87 J	2.00 U	µg/L
				GW-013926-041817-SAG-003	1.44 J	2.00 U	µg/L
Metals	Chromium	04/20/2017	0.618 J	GW-013926-041817-DJB-101	1.85 J	5.00 U	µg/L
				GW-013926-041817-DJB-102	1.97 J	5.00 U	µg/L
				GW-013926-041817-DJB-103	1.47 J	5.00 U	µg/L
				GW-013926-041817-DJB-104	2.26 J	5.00 U	µg/L
				GW-013926-041817-SAG-005	1.78 J	5.00 U	µg/L
Metals	Silver	04/20/2017	0.106 J	GW-013926-041817-SAG-003	0.0400 J	1.00 U	µg/L
				GW-013926-041817-SAG-004	0.122 J	1.00 U	µg/L
				GW-013926-041817-SAG-005	0.0270 J	1.00 U	µg/L
Metals	Chromium	04/24/2017	0.763 J	GW-013926-041917-SAG-006	1.15 J	5.00 U	µg/L
				GW-013926-041917-SAG-007	1.19 J	5.00 U	µg/L
				GW-013926-042017-SAG-008	1.31 J	5.00 U	µg/L
				GW-013926-042017-SAG-009	1.50 J	5.00 U	µg/L
				GW-013926-041917-DJB-106	3.51 J	5.00 U	µg/L
				GW-013926-041917-DJB-107	1.27 J	5.00 U	µg/L
				GW-013926-041917-DJB-108	1.41 J	5.00 U	µg/L
				GW-013926-042017-DJB-109	0.933 J	5.00 U	µg/L
				GW-013926-042017-DJB-110	1.39 J	5.00 U	µg/L
				GW-013926-042017-DJB-111	1.37 J	5.00 U	µg/L

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit

Table 5

Qualified Sample Data Due to Variability in Field Duplicate Results
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
April 2017

Parameter	Analyte	RPD	Sample ID	Qualified Result	Field Duplicate Sample ID	Qualified Result	Units
Dissolved Gases	Methane	64	GW-013926-042017-SAG-008	20 J	GW-013926-042017-SAG-009	39 J	µg/L
Metals	Iron (dissolved)	78	GW-013926-042017-SAG-008	92.1 J	GW-013926-042017-SAG-009	211 J	µg/L

Notes:

RPD - Relative Percent Difference
J - Estimated concentration

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 28, 2017

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aquatech

Dear Terefe Mazengia:

Order No: 1704F88

Analytical Environmental Services, Inc. received 6 samples on April 19, 2017 10:25 am for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1704F88

Date: 4/18/17 Page 1 of 1

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd. Duluth GA 30096

PHONE: 770-441-0027

FAX: 770-441-2050

SAMPLED BY: DJB

SIGNATURE: [signature]

ANALYSIS REQUESTED

PRESERVATION (See codes)

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL VOCs + TMBs	1,4 Dioxane	SSP Metals	Fe + Manganese	Dis. Gases	Alkalinity	Chloride	Nitrate	Sulfate	TOC	Ammonia	Ortho Phosphate	EDB	REMARKS	No # of Containers
1	GW-013926-041817-DJB-101	4/18/17	10:00	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	SSOW #	13
2	102		11:15	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	13926.25002	13
3	103		14:00	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		13
4	104		16:00	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		13
5	GW-013926-041817-DJB 105	4/18/17	17:15	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		13
6	Trip Blank						X														2
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	4/18/17 18:30	1: [signature]	4/19/17 10:25
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Aquatech
PROJECT #: 013926
SITE ADDRESS: Greer, SC
SEND REPORT TO: See SSOW
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers: 67

Turnaround Time Request
- ✓ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project: Aquatech
Lab ID: 1704F88

Case Narrative

Micro-extractable VOC Analysis by Method 8011:

Matrix spike duplicate analyses were not performed with Batch 241333 due to insufficient sample volume.

At the request of Paul McMahon Iron and Manganese were reported for dissolved metals only by method 6020

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-101
Project Name:	Aquatech	**Collection Date:**	4/18/2017 10:00:00 AM
Lab ID:	1704F88-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/24/2017 18:22	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/24/2017 18:22	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/24/2017 18:22	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/24/2017 18:22	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/24/2017 18:22	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/24/2017 18:22	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/24/2017 18:22	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/24/2017 18:22	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/24/2017 18:22	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Chloroform	BRL		0.20	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/24/2017 18:22	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	241557	1	04/24/2017 18:22	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/24/2017 18:22	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/24/2017 18:22	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/24/2017 18:22	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 18:22	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-101
Project Name:	Aquatech	**Collection Date:**	4/18/2017 10:00:00 AM
Lab ID:	1704F88-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/24/2017 18:22	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/24/2017 18:22	NP
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 18:22	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/24/2017 18:22	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/24/2017 18:22	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/24/2017 18:22	NP
Surr: 4-Bromofluorobenzene	79.4		0	70-130	%REC	241557	1	04/24/2017 18:22	NP
Surr: Dibromofluoromethane	112		0	70-130	%REC	241557	1	04/24/2017 18:22	NP
Surr: Toluene-d8	102		0	70-130	%REC	241557	1	04/24/2017 18:22	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.579	J	0.337	1.00	mg/L	R341364	1	04/21/2017 17:58	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	BRL		0.156	5.00	ug/L	241281	1	04/21/2017 20:19	JS
Barium	46.4		0.185	10.0	ug/L	241281	1	04/21/2017 20:19	JS
Cadmium	BRL		0.148	0.700	ug/L	241281	1	04/21/2017 20:19	JS
Chromium	1.85	J	0.193	5.00	ug/L	241281	1	04/21/2017 20:19	JS
Copper	1.00	J	0.126	2.00	ug/L	241281	1	04/21/2017 20:19	JS
Lead	0.336	J	0.215	1.00	ug/L	241281	1	04/21/2017 20:19	JS
Selenium	0.531	J	0.264	5.00	ug/L	241281	1	04/21/2017 20:19	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0146		0.00410	0.0100	mg/L	R341087	1	04/19/2017 19:15	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341482	1	04/25/2017 14:20	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 12:25	AW
Surr: 4-Bromofluorobenzene	118		0	64.9-131	%REC	241333	1	04/20/2017 12:25	AW
ION SCAN SW9056A									
Chloride	1.9		0.17	1.0	mg/L	R341333	1	04/19/2017 20:18	JW
Nitrate	1.6		0.055	0.25	mg/L	R341333	1	04/19/2017 20:18	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-101
Project Name:	Aquatech	**Collection Date:**	4/18/2017 10:00:00 AM
Lab ID:	1704F88-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	14		0.12	1.0	mg/L	R341333	1	04/19/2017 20:18	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241326	1	04/20/2017 09:59	EI
Ethylene	BRL		3.5	7.0	ug/L	241326	1	04/20/2017 09:59	EI
Methane	BRL		1.2	4.0	ug/L	241326	1	04/20/2017 09:59	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	386		6.47	100	ug/L	241692	1	04/26/2017 22:32	JS
Manganese	5.33		0.344	5.00	ug/L	241692	1	04/26/2017 22:32	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	18.0		1.68	3.00	mg/L	R341456	1	04/24/2017 10:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	1.6	J	0.47	2.0	ug/L	241598	1	04/25/2017 12:15	NP
Surr: 4-Bromofluorobenzene	100		0	84.6-119	%REC	241598	1	04/25/2017 12:15	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241598	1	04/25/2017 12:15	NP
Surr: Toluene-d8	99.7		0	85-115	%REC	241598	1	04/25/2017 12:15	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-102
Project Name:	Aquatech	**Collection Date:**	4/18/2017 11:15:00 AM
Lab ID:	1704F88-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/24/2017 19:37	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/24/2017 19:37	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/24/2017 19:37	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/24/2017 19:37	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/24/2017 19:37	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/24/2017 19:37	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/24/2017 19:37	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/24/2017 19:37	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/24/2017 19:37	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Chloroform	BRL		0.20	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/24/2017 19:37	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	241557	1	04/24/2017 19:37	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/24/2017 19:37	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/24/2017 19:37	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/24/2017 19:37	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 19:37	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-102
Project Name:	Aquatech	**Collection Date:**	4/18/2017 11:15:00 AM
Lab ID:	1704F88-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/24/2017 19:37	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/24/2017 19:37	NP
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 19:37	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/24/2017 19:37	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/24/2017 19:37	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/24/2017 19:37	NP
Surr: 4-Bromofluorobenzene	79.8		0	70-130	%REC	241557	1	04/24/2017 19:37	NP
Surr: Dibromofluoromethane	110		0	70-130	%REC	241557	1	04/24/2017 19:37	NP
Surr: Toluene-d8	99.3		0	70-130	%REC	241557	1	04/24/2017 19:37	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.596	J	0.337	1.00	mg/L	R341364	1	04/21/2017 18:24	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.157	J	0.156	5.00	ug/L	241281	1	04/21/2017 20:25	JS
Barium	28.2		0.185	10.0	ug/L	241281	1	04/21/2017 20:25	JS
Cadmium	BRL		0.148	0.700	ug/L	241281	1	04/21/2017 20:25	JS
Chromium	1.97	J	0.193	5.00	ug/L	241281	1	04/21/2017 20:25	JS
Copper	2.30		0.126	2.00	ug/L	241281	1	04/21/2017 20:25	JS
Lead	0.287	J	0.215	1.00	ug/L	241281	1	04/21/2017 20:25	JS
Selenium	BRL		0.264	5.00	ug/L	241281	1	04/21/2017 20:25	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0853		0.00410	0.0100	mg/L	R341087	1	04/19/2017 19:17	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341482	1	04/25/2017 14:22	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 13:50	AW
Surr: 4-Bromofluorobenzene	115		0	64.9-131	%REC	241333	1	04/20/2017 13:50	AW
ION SCAN SW9056A									
Chloride	1.9		0.17	1.0	mg/L	R341333	1	04/19/2017 21:03	JW
Nitrate	1.2		0.055	0.25	mg/L	R341333	1	04/19/2017 21:03	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-102
Project Name:	Aquatech	**Collection Date:**	4/18/2017 11:15:00 AM
Lab ID:	1704F88-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	2.1		0.12	1.0	mg/L	R341333	1	04/19/2017 21:03	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241326	1	04/20/2017 10:04	EI
Ethylene	BRL		3.5	7.0	ug/L	241326	1	04/20/2017 10:04	EI
Methane	25		1.2	4.0	ug/L	241326	1	04/20/2017 10:04	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	819		6.47	100	ug/L	241692	1	04/26/2017 23:03	JS
Manganese	275		0.344	5.00	ug/L	241692	1	04/26/2017 23:03	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	27.0		1.68	3.00	mg/L	R341456	1	04/24/2017 10:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	241598	1	04/25/2017 11:21	NP
Surr: 4-Bromofluorobenzene	100		0	84.6-119	%REC	241598	1	04/25/2017 11:21	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241598	1	04/25/2017 11:21	NP
Surr: Toluene-d8	99.6		0	85-115	%REC	241598	1	04/25/2017 11:21	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-103
Project Name:	Aquatech	**Collection Date:**	4/18/2017 2:00:00 PM
Lab ID:	1704F88-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,1,2,2-Tetrachloroethane	5.6		0.34	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,1-Dichloroethane	7.3		0.43	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,1-Dichloroethene	6.8		0.40	2.0	ug/L	241557	1	04/24/2017 20:02	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/24/2017 20:02	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/24/2017 20:02	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/24/2017 20:02	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/24/2017 20:02	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/24/2017 20:02	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/24/2017 20:02	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/24/2017 20:02	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/24/2017 20:02	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Chloroform	2.3		0.20	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/24/2017 20:02	NP
cis-1,2-Dichloroethene	130		0.28	1.0	ug/L	241557	1	04/24/2017 20:02	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/24/2017 20:02	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Freon-113	4.0	J	0.32	5.0	ug/L	241557	1	04/24/2017 20:02	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/24/2017 20:02	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 20:02	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-103
Project Name:	Aquatech	**Collection Date:**	4/18/2017 2:00:00 PM
Lab ID:	1704F88-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/24/2017 20:02	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/24/2017 20:02	NP
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Tetrachloroethene	35		0.46	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 20:02	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/24/2017 20:02	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/24/2017 20:02	NP
Trichloroethene	190		0.30	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Vinyl chloride	1.1		0.30	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/24/2017 20:02	NP
Surr: 4-Bromofluorobenzene	79		0	70-130	%REC	241557	1	04/24/2017 20:02	NP
Surr: Dibromofluoromethane	109		0	70-130	%REC	241557	1	04/24/2017 20:02	NP
Surr: Toluene-d8	101		0	70-130	%REC	241557	1	04/24/2017 20:02	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.36		0.337	1.00	mg/L	R341364	1	04/21/2017 18:50	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.439	J	0.156	5.00	ug/L	241281	1	04/21/2017 20:32	JS
Barium	80.6		0.185	10.0	ug/L	241281	1	04/21/2017 20:32	JS
Cadmium	BRL		0.148	0.700	ug/L	241281	1	04/21/2017 20:32	JS
Chromium	1.47	J	0.193	5.00	ug/L	241281	1	04/21/2017 20:32	JS
Copper	0.696	J	0.126	2.00	ug/L	241281	1	04/21/2017 20:32	JS
Lead	BRL		0.215	1.00	ug/L	241281	1	04/21/2017 20:32	JS
Selenium	BRL		0.264	5.00	ug/L	241281	1	04/21/2017 20:32	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.169		0.00410	0.0100	mg/L	R341087	1	04/19/2017 19:19	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341482	1	04/25/2017 14:24	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 14:19	AW
Surr: 4-Bromofluorobenzene	122		0	64.9-131	%REC	241333	1	04/20/2017 14:19	AW
ION SCAN SW9056A									
Chloride	13		0.17	1.0	mg/L	R341333	1	04/19/2017 21:34	JW
Nitrate	0.74		0.055	0.25	mg/L	R341333	1	04/19/2017 21:34	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-103
Project Name:	Aquatech	**Collection Date:**	4/18/2017 2:00:00 PM
Lab ID:	1704F88-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	1.0		0.12	1.0	mg/L	R341333	1	04/19/2017 21:34	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241326	1	04/20/2017 10:21	EI
Ethylene	BRL		3.5	7.0	ug/L	241326	1	04/20/2017 10:21	EI
Methane	2.4	J	1.2	4.0	ug/L	241326	1	04/20/2017 10:21	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	241692	1	04/26/2017 23:09	JS
Manganese	20.1		0.344	5.00	ug/L	241692	1	04/26/2017 23:09	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	31.0		1.68	3.00	mg/L	R341456	1	04/24/2017 10:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	56		0.47	2.0	ug/L	241598	1	04/25/2017 11:48	NP
Surr: 4-Bromofluorobenzene	99.8		0	84.6-119	%REC	241598	1	04/25/2017 11:48	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241598	1	04/25/2017 11:48	NP
Surr: Toluene-d8	99.9		0	85-115	%REC	241598	1	04/25/2017 11:48	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-104
Project Name:	Aquatech	**Collection Date:**	4/18/2017 4:00:00 PM
Lab ID:	1704F88-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	0.66	J	0.30	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,1,2,2-Tetrachloroethane	0.96	J	0.34	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,1-Dichloroethene	1.6	J	0.40	2.0	ug/L	241557	1	04/24/2017 20:27	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,2-Dichloroethane	1.4		0.37	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/24/2017 20:27	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/24/2017 20:27	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/24/2017 20:27	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/24/2017 20:27	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/24/2017 20:27	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/24/2017 20:27	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/24/2017 20:27	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/24/2017 20:27	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Chloroform	1.5		0.20	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/24/2017 20:27	NP
cis-1,2-Dichloroethene	2.4		0.28	1.0	ug/L	241557	1	04/24/2017 20:27	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/24/2017 20:27	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/24/2017 20:27	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/24/2017 20:27	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 20:27	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-104
Project Name:	Aquatech	**Collection Date:**	4/18/2017 4:00:00 PM
Lab ID:	1704F88-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/24/2017 20:27	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/24/2017 20:27	NP
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Tetrachloroethene	8.2		0.46	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 20:27	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/24/2017 20:27	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/24/2017 20:27	NP
Trichloroethene	7.5		0.30	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Trichlorofluoromethane	1.5		0.18	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/24/2017 20:27	NP
Surr: 4-Bromofluorobenzene	79		0	70-130	%REC	241557	1	04/24/2017 20:27	NP
Surr: Dibromofluoromethane	109		0	70-130	%REC	241557	1	04/24/2017 20:27	NP
Surr: Toluene-d8	100		0	70-130	%REC	241557	1	04/24/2017 20:27	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.16		0.337	1.00	mg/L	R341364	1	04/21/2017 19:16	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.547	J	0.156	5.00	ug/L	241281	1	04/21/2017 20:38	JS
Barium	171		0.185	10.0	ug/L	241281	1	04/21/2017 20:38	JS
Cadmium	BRL		0.148	0.700	ug/L	241281	1	04/21/2017 20:38	JS
Chromium	2.26	J	0.193	5.00	ug/L	241281	1	04/21/2017 20:38	JS
Copper	1.49	J	0.126	2.00	ug/L	241281	1	04/21/2017 20:38	JS
Lead	0.368	J	0.215	1.00	ug/L	241281	1	04/21/2017 20:38	JS
Selenium	BRL		0.264	5.00	ug/L	241281	1	04/21/2017 20:38	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.212		0.0205	0.0500	mg/L	R341087	5	04/19/2017 19:34	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341482	1	04/25/2017 14:25	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 14:47	AW
Surr: 4-Bromofluorobenzene	118		0	64.9-131	%REC	241333	1	04/20/2017 14:47	AW
ION SCAN SW9056A									
Chloride	11		0.17	1.0	mg/L	R341333	1	04/19/2017 21:49	JW
Nitrate	1.3		0.055	0.25	mg/L	R341333	1	04/19/2017 21:49	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-104
Project Name:	Aquatech	**Collection Date:**	4/18/2017 4:00:00 PM
Lab ID:	1704F88-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	15		0.12	1.0	mg/L	R341333	1	04/19/2017 21:49	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241326	1	04/20/2017 10:33	EI
Ethylene	BRL		3.5	7.0	ug/L	241326	1	04/20/2017 10:33	EI
Methane	BRL		1.2	4.0	ug/L	241326	1	04/20/2017 10:33	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	1270		6.47	100	ug/L	241692	1	04/26/2017 23:34	JS
Manganese	128		0.344	5.00	ug/L	241692	1	04/26/2017 23:34	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	4.00		1.68	3.00	mg/L	R341456	1	04/24/2017 10:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	7.9		0.47	2.0	ug/L	241598	1	04/25/2017 12:42	NP
Surr: 4-Bromofluorobenzene	101		0	84.6-119	%REC	241598	1	04/25/2017 12:42	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241598	1	04/25/2017 12:42	NP
Surr: Toluene-d8	100		0	85-115	%REC	241598	1	04/25/2017 12:42	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-105
Project Name:	Aquatech	**Collection Date:**	4/18/2017 5:15:00 PM
Lab ID:	1704F88-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/24/2017 20:52	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/24/2017 20:52	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/24/2017 20:52	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/24/2017 20:52	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/24/2017 20:52	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/24/2017 20:52	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/24/2017 20:52	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/24/2017 20:52	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/24/2017 20:52	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Chloroform	BRL		0.20	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/24/2017 20:52	NP
cis-1,2-Dichloroethene	14		0.28	1.0	ug/L	241557	1	04/24/2017 20:52	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/24/2017 20:52	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/24/2017 20:52	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/24/2017 20:52	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 20:52	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-105
Project Name:	Aquatech	**Collection Date:**	4/18/2017 5:15:00 PM
Lab ID:	1704F88-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/24/2017 20:52	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/24/2017 20:52	NP
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Tetrachloroethene	28		0.46	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 20:52	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/24/2017 20:52	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/24/2017 20:52	NP
Trichloroethene	49		0.30	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/24/2017 20:52	NP
Surr: 4-Bromofluorobenzene	73.8		0	70-130	%REC	241557	1	04/24/2017 20:52	NP
Surr: Dibromofluoromethane	112		0	70-130	%REC	241557	1	04/24/2017 20:52	NP
Surr: Toluene-d8	101		0	70-130	%REC	241557	1	04/24/2017 20:52	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.15		0.337	1.00	mg/L	R341364	1	04/21/2017 19:42	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	BRL		0.156	5.00	ug/L	241281	1	04/21/2017 20:44	JS
Barium	109		0.185	10.0	ug/L	241281	1	04/21/2017 20:44	JS
Cadmium	BRL		0.148	0.700	ug/L	241281	1	04/21/2017 20:44	JS
Chromium	4.64	J	0.193	5.00	ug/L	241281	1	04/21/2017 20:44	JS
Copper	0.858	J	0.126	2.00	ug/L	241281	1	04/21/2017 20:44	JS
Lead	BRL		0.215	1.00	ug/L	241281	1	04/21/2017 20:44	JS
Selenium	BRL		0.264	5.00	ug/L	241281	1	04/21/2017 20:44	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0384		0.00410	0.0100	mg/L	R341087	1	04/19/2017 19:21	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341482	1	04/25/2017 14:26	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 15:16	AW
Surr: 4-Bromofluorobenzene	117		0	64.9-131	%REC	241333	1	04/20/2017 15:16	AW
ION SCAN SW9056A									
Chloride	9.2		0.17	1.0	mg/L	R341333	1	04/19/2017 22:04	JW
Nitrate	1.5		0.055	0.25	mg/L	R341333	1	04/19/2017 22:04	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-DJB-105
Project Name:	Aquatech	**Collection Date:**	4/18/2017 5:15:00 PM
Lab ID:	1704F88-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	2.6		0.12	1.0	mg/L	R341333	1	04/19/2017 22:04	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241326	1	04/20/2017 10:55	EI
Ethylene	BRL		3.5	7.0	ug/L	241326	1	04/20/2017 10:55	EI
Methane	BRL		1.2	4.0	ug/L	241326	1	04/20/2017 10:55	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	63.8	J	6.47	100	ug/L	241692	1	04/26/2017 23:40	JS
Manganese	76.6		0.344	5.00	ug/L	241692	1	04/26/2017 23:40	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	9.00		1.68	3.00	mg/L	R341456	1	04/24/2017 10:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	12		0.47	2.0	ug/L	241598	1	04/25/2017 13:10	NP
Surr: 4-Bromofluorobenzene	99.1		0	84.6-119	%REC	241598	1	04/25/2017 13:10	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241598	1	04/25/2017 13:10	NP
Surr: Toluene-d8	98.9		0	85-115	%REC	241598	1	04/25/2017 13:10	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aquatech	**Collection Date:**	4/19/2017
Lab ID:	1704F88-006	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/24/2017 17:32	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/24/2017 17:32	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/24/2017 17:32	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/24/2017 17:32	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/24/2017 17:32	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/24/2017 17:32	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/24/2017 17:32	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/24/2017 17:32	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/24/2017 17:32	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Chloroform	BRL		0.20	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/24/2017 17:32	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	241557	1	04/24/2017 17:32	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/24/2017 17:32	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/24/2017 17:32	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/24/2017 17:32	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 17:32	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aquatech	**Collection Date:**	4/19/2017
Lab ID:	1704F88-006	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)									
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/24/2017 17:32	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/24/2017 17:32	NP
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 17:32	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/24/2017 17:32	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/24/2017 17:32	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/24/2017 17:32	NP
Surr: 4-Bromofluorobenzene	78.6		0	70-130	%REC	241557	1	04/24/2017 17:32	NP
Surr: Dibromofluoromethane	108		0	70-130	%REC	241557	1	04/24/2017 17:32	NP
Surr: Toluene-d8	98.9		0	70-130	%REC	241557	1	04/24/2017 17:32	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM (SW5030B)									
1,4-Dioxane	BRL		0.47	2.0	ug/L	241598	1	04/25/2017 10:27	NP
Surr: 4-Bromofluorobenzene	99.6		0	84.6-119	%REC	241598	1	04/25/2017 10:27	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241598	1	04/25/2017 10:27	NP
Surr: Toluene-d8	101		0	85-115	%REC	241598	1	04/25/2017 10:27	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- F Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- Less than Result value
- arr See case narrative

Clear Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **GHD Services, Inc.** AES Work Order Number: **1704F88**

2. Carrier: FedEx ■ UPS ☐ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	●	○	○		
5.	Custody seals intact on shipping container?	●	○	○		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 4.2 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MJ 4/19/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). TR 4/19/17

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked?	●	○	○		As applicable.
29.	Containers meet preservation guidelines?	●	○	○		Checked at analysis.
30.	Was pH adjusted?	○	○	●		Checked at analysis.

I certify that I have completed sections 28-30 (dated initials). TR 4/19/17

Checklist 1/19/17 Rev 0.

Locked

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Lab Order: 1704F88

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1704F88-001A	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00 PM	04/24/2017
1704F88-001A	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00 AM	04/25/2017
1704F88-001B	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00 AM	04/20/2017
1704F88-001C	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	GC Analysis of Gaseous Samples		4/20/2017 8:27:12 AM	04/20/2017
1704F88-001D	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	Alkalinity by SM2320B			04/24/2017
1704F88-001E	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	Phosphorus, ortho			04/19/2017
1704F88-001E	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	ION SCAN			04/19/2017
1704F88-001F	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704F88-001F	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	Total Organic Carbon (TOC)			04/21/2017
1704F88-001G	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00 PM	04/26/2017
1704F88-001H	GW-013926-041817-DJB-101	4/18/2017 10:00:00AM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00 PM	04/21/2017
1704F88-002A	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00 PM	04/24/2017
1704F88-002A	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00 AM	04/25/2017
1704F88-002B	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00 AM	04/20/2017
1704F88-002C	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	GC Analysis of Gaseous Samples		4/20/2017 8:27:12 AM	04/20/2017
1704F88-002D	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	Alkalinity by SM2320B			04/24/2017
1704F88-002E	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	Phosphorus, ortho			04/19/2017
1704F88-002E	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	ION SCAN			04/19/2017
1704F88-002F	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704F88-002F	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	Total Organic Carbon (TOC)			04/21/2017
1704F88-002G	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00 PM	04/26/2017
1704F88-002H	GW-013926-041817-DJB-102	4/18/2017 11:15:00AM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00 PM	04/21/2017
1704F88-003A	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00 PM	04/24/2017
1704F88-003A	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00 AM	04/25/2017
1704F88-003B	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00 AM	04/20/2017
1704F88-003C	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	GC Analysis of Gaseous Samples		4/20/2017 8:27:12 AM	04/20/2017
1704F88-003D	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	Alkalinity by SM2320B			04/24/2017
1704F88-003E	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	Phosphorus, ortho			04/19/2017
1704F88-003E	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	ION SCAN			04/19/2017

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Lab Order: 1704F88

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1704F88-003F	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704F88-003F	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	Total Organic Carbon (TOC)			04/21/2017
1704F88-003G	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00 PM	04/26/2017
1704F88-003H	GW-013926-041817-DJB-103	4/18/2017 2:00:00PM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00 PM	04/21/2017
1704F88-004A	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00 PM	04/24/2017
1704F88-004A	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00 AM	04/25/2017
1704F88-004B	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00 AM	04/20/2017
1704F88-004C	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	GC Analysis of Gaseous Samples		4/20/2017 8:27:12 AM	04/20/2017
1704F88-004D	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	Alkalinity by SM2320B			04/24/2017
1704F88-004E	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	Phosphorus, ortho			04/19/2017
1704F88-004E	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	ION SCAN			04/19/2017
1704F88-004F	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704F88-004F	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	Total Organic Carbon (TOC)			04/21/2017
1704F88-004G	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00 PM	04/26/2017
1704F88-004H	GW-013926-041817-DJB-104	4/18/2017 4:00:00PM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00 PM	04/21/2017
1704F88-005A	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00 PM	04/24/2017
1704F88-005A	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00 AM	04/25/2017
1704F88-005B	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00 AM	04/20/2017
1704F88-005C	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	GC Analysis of Gaseous Samples		4/20/2017 8:27:12 AM	04/20/2017
1704F88-005D	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	Alkalinity by SM2320B			04/24/2017
1704F88-005E	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	Phosphorus, ortho			04/19/2017
1704F88-005E	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	ION SCAN			04/19/2017
1704F88-005F	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704F88-005F	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	Total Organic Carbon (TOC)			04/21/2017
1704F88-005G	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00 PM	04/26/2017
1704F88-005H	GW-013926-041817-DJB-105	4/18/2017 5:15:00PM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00 PM	04/21/2017
1704F88-006A	TRIP BLANK	4/19/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00 PM	04/24/2017
1704F88-006A	TRIP BLANK	4/19/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00 AM	04/25/2017

Analytical Environmental Services, Inc Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241281

Sample ID: **MB-241281** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475441**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00									
Barium	BRL	10.0									
Cadmium	BRL	0.700									
Chromium	0.6180	5.00									J
Copper	0.3830	2.00									J
Iron	BRL	100									
Lead	BRL	1.00									
Manganese	BRL	5.00									
Selenium	BRL	5.00									

Sample ID: **LCS-241281** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475442**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	101.7	5.00	100.0		102	80	120				
Barium	100.4	10.0	100.0		100	80	120				
Cadmium	99.44	0.700	100.0		99.4	80	120				
Chromium	100.3	5.00	100.0	0.6180	99.7	80	120				
Copper	102.7	2.00	100.0	0.3830	102	80	120				
Iron	989.3	100	1000		98.9	80	120				
Lead	97.89	1.00	100.0		97.9	80	120				
Manganese	98.08	5.00	100.0		98.1	80	120				
Selenium	102.8	5.00	100.0		103	80	120				

Sample ID: **1704F26-004AMS** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475444**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241281

Sample ID: **1704F26-004AMS** Client ID:
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B**
Units: **ug/L** BatchID: **241281**
Prep Date: **04/20/2017** Analysis Date: **04/21/2017**
Run No: **341343** Seq No: **7475444**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	101.3	5.00	100.0		101	75	125				
Barium	110.8	10.0	100.0	3.276	108	75	125				
Cadmium	99.78	0.700	100.0		99.8	75	125				
Chromium	100.9	5.00	100.0	1.250	99.6	75	125				
Copper	135.6	2.00	100.0	34.73	101	75	125				
Iron	1044	100	1000	68.74	97.5	75	125				
Lead	102.7	1.00	100.0	0.7870	102	75	125				
Manganese	110.4	5.00	100.0	13.78	96.6	75	125				
Selenium	102.3	5.00	100.0		102	75	125				

Sample ID: **1704F26-004AMSD** Client ID:
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B**
Units: **ug/L** BatchID: **241281**
Prep Date: **04/20/2017** Analysis Date: **04/21/2017**
Run No: **341343** Seq No: **7475445**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	101.1	5.00	100.0		101	75	125	101.3	0.198	20	
Barium	101.3	10.0	100.0	3.276	98.0	75	125	110.8	8.96	20	
Cadmium	99.36	0.700	100.0		99.4	75	125	99.78	0.422	20	
Chromium	100.2	5.00	100.0	1.250	99.0	75	125	100.9	0.696	20	
Copper	136.6	2.00	100.0	34.73	102	75	125	135.6	0.735	20	
Iron	1034	100	1000	68.74	96.5	75	125	1044	0.962	20	
Lead	97.62	1.00	100.0	0.7870	96.8	75	125	102.7	5.07	20	
Manganese	110.2	5.00	100.0	13.78	96.4	75	125	110.4	0.181	20	
Selenium	101.8	5.00	100.0		102	75	125	102.3	0.490	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241326

Sample ID: **MB-241326** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341146**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **241326** Analysis Date: **04/20/2017** Seq No: **7469106**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9.0									
Ethylene	BRL	7.0									
Methane	BRL	4.0									

Sample ID: **LCS-241326** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341146**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **241326** Analysis Date: **04/20/2017** Seq No: **7469107**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	111.8	9.0	200.0		55.9	43.9	115				
Ethylene	74.60	7.0	200.0		37.3	29.6	115				
Methane	126.2	4.0	200.0		63.1	49.2	115				

Sample ID: **LCSD-241326** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341146**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **241326** Analysis Date: **04/20/2017** Seq No: **7469108**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	107.6	9.0	200.0		53.8	43.9	115	111.8	3.86	20	
Ethylene	71.97	7.0	200.0		36.0	29.6	115	74.60	3.59	20	
Methane	122.4	4.0	200.0		61.2	49.2	115	126.2	3.06	20	

Sample ID: **1704F88-001CMS** Client ID: **GW-013926-041817-DJB-101** Units: **ug/L** Prep Date: **04/20/2017** Run No: **341146**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **241326** Analysis Date: **04/20/2017** Seq No: **7469149**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	128.0	9.0	200.0		64.0	36.3	115				
Ethylene	84.94	7.0	200.0		42.5	27	115				
Methane	133.7	4.0	200.0		66.8	40.5	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241326

Sample ID: **1704F88-001CMSD** Client ID: **GW-013926-041817-DJB-101** Units: **ug/L** Prep Date: **04/20/2017** Run No: **341146**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **241326** Analysis Date: **04/20/2017** Seq No: **7469150**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	124.0	9.0	200.0		62.0	36.3	115	128.0	3.14	20	
Ethylene	82.24	7.0	200.0		41.1	27	115	84.94	3.23	20	
Methane	129.5	4.0	200.0		64.7	40.5	115	133.7	3.21	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241333

Sample ID: **MB-241333** Client ID: Units: **ug/L** Prep Date: **04/19/2017** Run No: **341108**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241333** Analysis Date: **04/20/2017** Seq No: **7471342**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.201	0	5.000		104	64.9	131				

Sample ID: **LCS-241333** Client ID: Units: **ug/L** Prep Date: **04/19/2017** Run No: **341108**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241333** Analysis Date: **04/20/2017** Seq No: **7471343**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09600	0.020	0.1000		96.0	60	140				
Surr: 4-Bromofluorobenzene	5.303	0	5.000		106	64.9	131				

Sample ID: **LCSD-241333** Client ID: Units: **ug/L** Prep Date: **04/19/2017** Run No: **341108**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241333** Analysis Date: **04/20/2017** Seq No: **7471344**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1000	0.020	0.1000		100	60	140	0.09600	4.08	20	
Surr: 4-Bromofluorobenzene	5.335	0	5.000		107	64.9	131	5.303	0	0	

Sample ID: **1704F88-001BMS** Client ID: **GW-013926-041817-DJB-101** Units: **ug/L** Prep Date: **04/20/2017** Run No: **341108**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241333** Analysis Date: **04/20/2017** Seq No: **7471347**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1027	0.020	0.1007		102	65.6	136				
Surr: 4-Bromofluorobenzene	5.637	0	5.036		112	64.9	131				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **MB-241557** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475880**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2,4-Trimethylbenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3,5-Trimethylbenzene	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **MB-241557** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475880**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	41.25	0	50.00		82.5	70	130				
Surr: Dibromofluoromethane	52.83	0	50.00		106	70	130				
Surr: Toluene-d8	50.03	0	50.00		100	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **LCS-241557** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475879**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	57.35	1.0	50.00		115	70	130				
1,1,2,2-Tetrachloroethane	46.05	1.0	50.00		92.1	70	130				
1,1,2-Trichloroethane	48.86	1.0	50.00		97.7	70	130				
1,1-Dichloroethane	47.33	1.0	50.00		94.7	70	130				
1,1-Dichloroethene	54.05	2.0	50.00		108	60	140				
1,2,4-Trichlorobenzene	40.02	1.0	50.00		80.0	70	130				
1,2,4-Trimethylbenzene	43.89	1.0	50.00		87.8	70	130				
1,2-Dibromo-3-chloropropane	41.43	1.0	50.00		82.9	70	130				
1,2-Dichlorobenzene	41.00	1.0	50.00		82.0	70	130				
1,2-Dichloroethane	46.30	1.0	50.00		92.6	70	130				
1,2-Dichloropropane	44.52	1.0	50.00		89.0	70	130				
1,3,5-Trimethylbenzene	45.43	1.0	50.00		90.9	70	130				
1,3-Dichlorobenzene	42.80	1.0	50.00		85.6	70	130				
1,4-Dichlorobenzene	44.04	1.0	50.00		88.1	70	130				
Benzene	51.20	1.0	50.00		102	70	130				
Bromodichloromethane	44.31	1.0	50.00		88.6	70	130				
Bromoform	43.04	1.0	50.00		86.1	70	130				
Carbon tetrachloride	56.41	2.0	50.00		113	70	130				
Chlorobenzene	46.97	1.0	50.00		93.9	70	130				
Chloroform	49.25	1.0	50.00		98.5	70	130				
cis-1,2-Dichloroethene	48.79	1.0	50.00		97.6	70	130				
cis-1,3-Dichloropropene	43.05	1.0	50.00		86.1	70	130				
Dibromochloromethane	42.65	1.0	50.00		85.3	70	130				
Ethylbenzene	49.99	1.0	50.00		100.0	70	130				
Isopropylbenzene	42.53	1.0	50.00		85.1	70	130				
Methylene chloride	52.22	5.0	50.00		104	70	130				
Styrene	52.12	1.0	50.00		104	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **LCS-241557** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475879**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	50.58	1.0	50.00		101	70	130				
Toluene	51.09	1.0	50.00		102	70	130				
trans-1,2-Dichloroethene	53.07	2.0	50.00		106	70	130				
trans-1,3-Dichloropropene	41.75	2.0	50.00		83.5	70	130				
Trichloroethene	49.71	1.0	50.00		99.4	70	130				
Vinyl chloride	63.43	1.0	50.00		127	70	130				
Xylenes, Total	149.0	1.0	150.0		99.3	70	130				
Surr: 4-Bromofluorobenzene	48.41	0	50.00		96.8	70	130				
Surr: Dibromofluoromethane	53.19	0	50.00		106	70	130				
Surr: Toluene-d8	50.85	0	50.00		102	70	130				

Sample ID: **1704F88-001AMS** Client ID: **GW-013926-041817-DJB-101** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475897**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.10	1.0	50.00		118	72.2	142				
1,1,2,2-Tetrachloroethane	46.58	1.0	50.00		93.2	69.5	127				
1,1,2-Trichloroethane	52.98	1.0	50.00		106	75.4	127				
1,1-Dichloroethane	50.10	1.0	50.00		100	64.4	128				
1,1-Dichloroethene	117.2	2.0	100.0		117	64.3	149				
1,2,4-Trichlorobenzene	32.65	1.0	50.00		65.3	62.3	123				
1,2,4-Trimethylbenzene	43.00	1.0	50.00		86.0	70.3	128				
1,2-Dibromo-3-chloropropane	37.17	1.0	50.00		74.3	58.9	131				
1,2-Dichlorobenzene	39.13	1.0	50.00		78.3	66.8	125				
1,2-Dichloroethane	49.92	1.0	50.00		99.8	71.9	139				
1,2-Dichloropropane	46.33	1.0	50.00		92.7	73.2	126				
1,3,5-Trimethylbenzene	44.22	1.0	50.00		88.4	70	129				
1,3-Dichlorobenzene	41.29	1.0	50.00		82.6	69.7	123				

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **1704F88-001AMS** Client ID: **GW-013926-041817-DJB-101** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475897**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	42.99	1.0	50.00		86.0	66.8	126				
Benzene	107.7	1.0	100.0		108	71.6	132				
Bromodichloromethane	44.27	1.0	50.00		88.5	71.8	133				
Bromoform	42.65	1.0	50.00		85.3	58.2	132				
Carbon tetrachloride	58.01	2.0	50.00		116	61.8	142				
Chlorobenzene	98.53	1.0	100.0		98.5	73.1	126				
Chloroform	54.16	1.0	50.00		108	70.1	133				
cis-1,2-Dichloroethene	50.99	1.0	50.00		102	71.4	136				
cis-1,3-Dichloropropene	39.72	1.0	50.00		79.4	65.9	128				
Dibromochloromethane	42.09	1.0	50.00		84.2	63.8	134				
Ethylbenzene	51.43	1.0	50.00		103	81.2	130				
Isopropylbenzene	40.11	1.0	50.00		80.2	66	127				
Methylene chloride	57.44	5.0	50.00		115	68.4	135				
Styrene	53.48	1.0	50.00		107	70.1	128				
Tetrachloroethene	51.21	1.0	50.00		102	69.1	133				
Toluene	111.7	1.0	100.0		112	72.5	135				
trans-1,2-Dichloroethene	55.23	2.0	50.00		110	62.4	132				
trans-1,3-Dichloropropene	39.34	2.0	50.00		78.7	69.7	137				
Trichloroethene	103.6	1.0	100.0		104	70.2	132				
Vinyl chloride	71.83	1.0	50.00		144	55.9	136				S
Xylenes, Total	152.0	1.0	150.0		101	76.1	139				
Surr: 4-Bromofluorobenzene	48.91	0	50.00		97.8	70	130				
Surr: Dibromofluoromethane	54.35	0	50.00		109	70	130				
Surr: Toluene-d8	52.39	0	50.00		105	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **1704F88-001AMSD** Client ID: **GW-013926-041817-DJB-101** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475898**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	56.14	1.0	50.00		112	72.2	142	59.10	5.14	20	
1,1,2,2-Tetrachloroethane	47.47	1.0	50.00		94.9	69.5	127	46.58	1.89	20	
1,1,2-Trichloroethane	49.94	1.0	50.00		99.9	75.4	127	52.98	5.91	20	
1,1-Dichloroethane	47.72	1.0	50.00		95.4	64.4	128	50.10	4.87	20	
1,1-Dichloroethene	109.1	2.0	100.0		109	64.3	149	117.2	7.18	30.8	
1,2,4-Trichlorobenzene	35.52	1.0	50.00		71.0	62.3	123	32.65	8.42	36.8	
1,2,4-Trimethylbenzene	43.64	1.0	50.00		87.3	70.3	128	43.00	1.48	20	
1,2-Dibromo-3-chloropropane	38.56	1.0	50.00		77.1	58.9	131	37.17	3.67	20	
1,2-Dichlorobenzene	39.95	1.0	50.00		79.9	66.8	125	39.13	2.07	20	
1,2-Dichloroethane	47.08	1.0	50.00		94.2	71.9	139	49.92	5.86	20	
1,2-Dichloropropane	45.70	1.0	50.00		91.4	73.2	126	46.33	1.37	20	
1,3,5-Trimethylbenzene	45.94	1.0	50.00		91.9	70	129	44.22	3.82	20	
1,3-Dichlorobenzene	42.80	1.0	50.00		85.6	69.7	123	41.29	3.59	20	
1,4-Dichlorobenzene	44.22	1.0	50.00		88.4	66.8	126	42.99	2.82	20	
Benzene	102.5	1.0	100.0		102	71.6	132	107.7	4.99	20.7	
Bromodichloromethane	42.92	1.0	50.00		85.8	71.8	133	44.27	3.10	20	
Bromoform	40.16	1.0	50.00		80.3	58.2	132	42.65	6.01	20	
Carbon tetrachloride	56.42	2.0	50.00		113	61.8	142	58.01	2.78	20	
Chlorobenzene	94.13	1.0	100.0		94.1	73.1	126	98.53	4.57	26.6	
Chloroform	50.57	1.0	50.00		101	70.1	133	54.16	6.86	20	
cis-1,2-Dichloroethene	49.43	1.0	50.00		98.9	71.4	136	50.99	3.11	20	
cis-1,3-Dichloropropene	38.93	1.0	50.00		77.9	65.9	128	39.72	2.01	20	
Dibromochloromethane	40.70	1.0	50.00		81.4	63.8	134	42.09	3.36	20	
Ethylbenzene	49.73	1.0	50.00		99.5	81.2	130	51.43	3.36	20	
Isopropylbenzene	42.03	1.0	50.00		84.1	66	127	40.11	4.67	20	
Methylene chloride	55.92	5.0	50.00		112	68.4	135	57.44	2.68	20	
Styrene	51.75	1.0	50.00		104	70.1	128	53.48	3.29	20	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **1704F88-001AMSD** Client ID: **GW-013926-041817-DJB-101** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475898**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	48.65	1.0	50.00		97.3	69.1	133	51.21	5.13	20	
Toluene	104.9	1.0	100.0		105	72.5	135	111.7	6.28	23.2	
trans-1,2-Dichloroethene	51.91	2.0	50.00		104	62.4	132	55.23	6.20	20	
trans-1,3-Dichloropropene	38.92	2.0	50.00		77.8	69.7	137	39.34	1.07	20	
Trichloroethene	99.13	1.0	100.0		99.1	70.2	132	103.6	4.38	27.7	
Vinyl chloride	66.41	1.0	50.00		133	55.9	136	71.83	7.84	20	
Xylenes, Total	147.2	1.0	150.0		98.1	76.1	139	152.0	3.25	20	
Surr: 4-Bromofluorobenzene	48.07	0	50.00		96.1	70	130	48.91	0	0	
Surr: Dibromofluoromethane	53.00	0	50.00		106	70	130	54.35	0	0	
Surr: Toluene-d8	52.01	0	50.00		104	70	130	52.39	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241598

Sample ID: **MB-241598** Client ID: Units: **ug/L** Prep Date: **04/25/2017** Run No: **341466**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **241598** Analysis Date: **04/25/2017** Seq No: **7477379**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	49.95	0	50.00		99.9	84.6	119				
Surr: Dibromofluoromethane	50.73	0	50.00		101	80	119				
Surr: Toluene-d8	49.54	0	50.00		99.1	85	115				

Sample ID: **LCS-241598** Client ID: Units: **ug/L** Prep Date: **04/25/2017** Run No: **341466**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **241598** Analysis Date: **04/25/2017** Seq No: **7477378**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	9.890	5.0	10.00		98.9	68.1	133				
Surr: 4-Bromofluorobenzene	49.94	0	50.00		99.9	84.6	119				
Surr: Dibromofluoromethane	50.90	0	50.00		102	80	119				
Surr: Toluene-d8	50.10	0	50.00		100	85	115				

Sample ID: **1704H03-002AMS** Client ID: Units: **ug/L** Prep Date: **04/25/2017** Run No: **341466**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **241598** Analysis Date: **04/25/2017** Seq No: **7478315**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	20140	2500	5000	13820	126	65.9	135				
Surr: 4-Bromofluorobenzene	24940	0	25000		99.8	84.6	119				
Surr: Dibromofluoromethane	25390	0	25000		102	80	119				
Surr: Toluene-d8	24840	0	25000		99.3	85	115				

Sample ID: **1704H03-002AMSD** Client ID: Units: **ug/L** Prep Date: **04/25/2017** Run No: **341466**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **241598** Analysis Date: **04/25/2017** Seq No: **7478316**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	21830	2500	5000	13820	160	65.9	135	20140	8.03	31.5	S

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241598

Sample ID: **1704H03-002AMSD** Client ID:
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**
Units: **ug/L** BatchID: **241598**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341466** Seq No: **7478316**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	24950	0	25000		99.8	84.6	119	24940	0	0	
Surr: Dibromofluoromethane	25410	0	25000		102	80	119	25390	0	0	
Surr: Toluene-d8	24920	0	25000		99.7	85	115	24840	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: 241692

Sample ID: **MB-241692** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341647**
SampleType: **MBLK** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241692** Analysis Date: **04/26/2017** Seq No: **7481813**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	BRL	100									
Manganese	0.4350	5.00									J

Sample ID: **LCS-241692** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341647**
SampleType: **LCS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241692** Analysis Date: **04/26/2017** Seq No: **7481814**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	984.7	100	1000		98.5	80	120				
Manganese	98.13	5.00	100.0	0.4350	97.7	80	120				

Sample ID: **1704F88-001GMS** Client ID: **GW-013926-041817-DJB-101** Units: **ug/L** Prep Date: **04/26/2017** Run No: **341647**
SampleType: **MS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241692** Analysis Date: **04/26/2017** Seq No: **7481817**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	1308	100	1000	386.0	92.2	75	125				
Manganese	101.1	5.00	100.0	5.331	95.8	75	125				

Sample ID: **1704F88-001GMSD** Client ID: **GW-013926-041817-DJB-101** Units: **ug/L** Prep Date: **04/26/2017** Run No: **341647**
SampleType: **MSD** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241692** Analysis Date: **04/26/2017** Seq No: **7481818**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	1323	100	1000	386.0	93.7	75	125	1308	1.14	20	
Manganese	100.7	5.00	100.0	5.331	95.4	75	125	101.1	0.396	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: R341087

Sample ID: **MB-R341087** Client ID:
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1**
Units: **mg/L** BatchID: **R341087**
Prep Date: Analysis Date: **04/19/2017**
Run No: **341087** Seq No: **7467770**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R341087** Client ID:
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1**
Units: **mg/L** BatchID: **R341087**
Prep Date: Analysis Date: **04/19/2017**
Run No: **341087** Seq No: **7467771**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09850	0.0100	0.1000		98.5	90	110				

Sample ID: **1704F88-001EMS** Client ID: **GW-013926-041817-DJB-101**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1**
Units: **mg/L** BatchID: **R341087**
Prep Date: Analysis Date: **04/19/2017**
Run No: **341087** Seq No: **7467777**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1170	0.0100	0.1000	0.01460	102	90	110				

Sample ID: **1704F88-002EMS** Client ID: **GW-013926-041817-DJB-102**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1**
Units: **mg/L** BatchID: **R341087**
Prep Date: Analysis Date: **04/19/2017**
Run No: **341087** Seq No: **7467783**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1810	0.0100	0.1000	0.08530	95.7	90	110				

Sample ID: **1704F88-001EMSD** Client ID: **GW-013926-041817-DJB-101**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1**
Units: **mg/L** BatchID: **R341087**
Prep Date: Analysis Date: **04/19/2017**
Run No: **341087** Seq No: **7467779**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1150	0.0100	0.1000	0.01460	100	90	110	0.1170	1.72	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: R341333

Sample ID: **MB-R341333** Client ID:
SampleType: **MBLK** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **341333**
BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476852**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R341333** Client ID:
SampleType: **LCS** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **341333**
BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476851**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	5.194	1.0	5.000		104	90	110				
Nitrate	5.028	0.25	5.000		101	90	110				
Sulfate	23.48	1.0	25.00		93.9	90	110				

Sample ID: **1704F88-001EMS** Client ID: **GW-013926-041817-DJB-101**
SampleType: **MS** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **341333**
BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476854**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	6.899	1.0	5.000	1.898	100	90	110				
Nitrate	6.841	0.25	5.000	1.592	105	90	110				
Sulfate	39.20	1.0	25.00	14.09	100	90	110				

Sample ID: **1704F88-002EMS** Client ID: **GW-013926-041817-DJB-102**
SampleType: **MS** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date: Run No: **341333**
BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476857**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	6.687	1.0	5.000	1.862	96.5	90	110				
Nitrate	6.293	0.25	5.000	1.162	103	90	110				
Sulfate	25.84	1.0	25.00	2.077	95.1	90	110				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: **R341333**

Sample ID: **1704F88-001EMSD** Client ID: **GW-013926-041817-DJB-101** Units: **mg/L** Prep Date: Run No: **341333**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476855**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	6.948	1.0	5.000	1.898	101	90	110	6.899	0.702	20	
Nitrate	6.858	0.25	5.000	1.592	105	90	110	6.841	0.244	20	
Sulfate	39.34	1.0	25.00	14.09	101	90	110	39.20	0.356	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: R341364

Sample ID: **MB-R341364** Client ID: Units: **mg/L** Prep Date: Run No: **341364**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R341364** Analysis Date: **04/21/2017** Seq No: **7475401**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R341364** Client ID: Units: **mg/L** Prep Date: Run No: **341364**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R341364** Analysis Date: **04/21/2017** Seq No: **7475400**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.73	1.00	25.00		103	90	110				

Sample ID: **1704E82-002EMS** Client ID: Units: **mg/L** Prep Date: Run No: **341364**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R341364** Analysis Date: **04/21/2017** Seq No: **7475406**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	32.04	1.00	25.00	7.331	98.8	80	120				

Sample ID: **1704E82-002EMSD** Client ID: Units: **mg/L** Prep Date: Run No: **341364**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R341364** Analysis Date: **04/21/2017** Seq No: **7475407**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	32.09	1.00	25.00	7.331	99.0	80	120	32.04	0.156	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: **R341456**

Sample ID: **MB-R341456** Client ID: Units: **mg/L** Prep Date: Run No: **341456**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R341456** Analysis Date: **04/24/2017** Seq No: **7477080**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R341456** Client ID: Units: **mg/L** Prep Date: Run No: **341456**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R341456** Analysis Date: **04/24/2017** Seq No: **7477081**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	128.0	3.00	125.0		102	75	125				

Sample ID: **1704H87-003FDUP** Client ID: Units: **mg/L** Prep Date: Run No: **341456**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R341456** Analysis Date: **04/24/2017** Seq No: **7477092**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	6.000	3.00						6.000	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704F88

ANALYTICAL QC SUMMARY REPORT

BatchID: **R341482**

Sample ID: **MB-R341482** Client ID: Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477632**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R341482** Client ID: Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477633**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.010	0.020	1.000		101	90	110				

Sample ID: **1704F02-001AMS** Client ID: Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477635**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.080	0.020	1.000	0.06060	102	90	110				

Sample ID: **1704F88-001FMS** Client ID: **GW-013926-041817-DJB-101** Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477645**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.020	0.020	1.000		102	90	110				

Sample ID: **1704F02-001AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477636**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.100	0.020	1.000	0.06060	104	90	110	1.080	1.83	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 28, 2017

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aquatech

Dear Terefe Mazengia:

Order No: 1704G37

Analytical Environmental Services, Inc. received 6 samples on April 19, 2017 10:25 am for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES's accreditations are as follows:
-NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
-NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

These results relate only to the items tested. This report may only be reproduced in full.

Chris Pafford
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1104931

Date: _____ Page _____ of _____

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd. Ste 470 Duluth, GA 30096

PHONE: 770-441-0021

FAX: 770-441-2050

SAMPLED BY: Steven Grau

SIGNATURE: [signature]

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL VOCs	1,4 Dioxane	EDB	Ions	N, NH3	total metals	diss. metals	ortho P						REMARKS	No # of Containers
							PRESERVATION (See codes)														
1	GW-013926-041817-SAG-001	4/18/17		X		GW	X	X	X	X	X	X	X	X							11
2	" " " " -002			X			X	X	X	X	X	X	X	X							11
3	" " " " -003			X			X	X	X	X	X	X	X	X							11
4	" " " " -004			X			X	X	X	X	X	X	X	X							11
5	" " " " -005			X			X	X	X	X	X	X	X	X							11
6	Trip Blank						X														2
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	4/18/17 1900	1: [signature]	4/19/17 10:25
2:		2:	
3:		3:	

PROJECT INFORMATION

PROJECT NAME: Aquatech

PROJECT #: 13926

SITE ADDRESS: Robinson Rd. Greer, SC

SEND REPORT TO: See SSOW

INVOICE TO: (IF DIFFERENT FROM ABOVE) See SSOW

QUOTE #: _____ PO#: _____

RECEIPT

Total # of Containers: 57

Turnaround Time Request
- ☒ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SPECIAL INSTRUCTIONS/COMMENTS: See SSOW # 13926-25-003

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER _____

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project: Aquatech
Lab ID: 1704G37

Case Narrative

Sample Receiving Nonconformance:

Collection times were not listed on the Chain of Custody for samples -001, -002, -003, -004, and -005. Sample(s) were logged in using the information present on the sample bottle labels.

Micro-extractable VOC Analysis by Method 8011:

Matrix spike duplicate analyses were not performed with Batch 241333 due to insufficient sample volume.

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-001
Project Name:	Aquatech	**Collection Date:**	4/18/2017 9:25:00 AM
Lab ID:	1704G37-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/25/2017 00:35	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/25/2017 00:35	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/25/2017 00:35	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/25/2017 00:35	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/25/2017 00:35	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/25/2017 00:35	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/25/2017 00:35	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/25/2017 00:35	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/25/2017 00:35	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Chloroform	BRL		0.20	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/25/2017 00:35	NP
cis-1,2-Dichloroethene	1.1		0.28	1.0	ug/L	241557	1	04/25/2017 00:35	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/25/2017 00:35	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/25/2017 00:35	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/25/2017 00:35	NP
Methyl tert-butyl ether	1.4		0.45	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/25/2017 00:35	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/25/2017 00:35	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-001
Project Name:	Aquatech	**Collection Date:**	4/18/2017 9:25:00 AM
Lab ID:	1704G37-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Tetrachloroethene	310		4.6	10	ug/L	241557	10	04/25/2017 01:00	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/25/2017 00:35	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/25/2017 00:35	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/25/2017 00:35	NP
Trichloroethene	2.4		0.30	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/25/2017 00:35	NP
Surr: 4-Bromofluorobenzene	76.6		0	70-130	%REC	241557	1	04/25/2017 00:35	NP
Surr: 4-Bromofluorobenzene	76		0	70-130	%REC	241557	10	04/25/2017 01:00	NP
Surr: Dibromofluoromethane	106		0	70-130	%REC	241557	10	04/25/2017 01:00	NP
Surr: Dibromofluoromethane	108		0	70-130	%REC	241557	1	04/25/2017 00:35	NP
Surr: Toluene-d8	101		0	70-130	%REC	241557	1	04/25/2017 00:35	NP
Surr: Toluene-d8	100		0	70-130	%REC	241557	10	04/25/2017 01:00	NP
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	1000		4.31	50.0	ug/L	241281	1	04/21/2017 20:50	JS
Antimony	0.363	J	0.197	5.00	ug/L	241281	1	04/21/2017 20:50	JS
Arsenic	3.61	J	0.156	5.00	ug/L	241281	1	04/21/2017 20:50	JS
Barium	112		0.185	10.0	ug/L	241281	1	04/21/2017 20:50	JS
Beryllium	0.215	J	0.147	1.00	ug/L	241281	1	04/21/2017 20:50	JS
Cadmium	0.457	J	0.148	0.700	ug/L	241281	1	04/21/2017 20:50	JS
Calcium	1950		14.4	100	ug/L	241281	1	04/21/2017 20:50	JS
Chromium	4.38	J	0.193	5.00	ug/L	241281	1	04/21/2017 20:50	JS
Cobalt	1.56	J	0.188	5.00	ug/L	241281	1	04/21/2017 20:50	JS
Copper	5.47		0.126	2.00	ug/L	241281	1	04/21/2017 20:50	JS
Iron	238		6.47	100	ug/L	241281	1	04/21/2017 20:50	JS
Lead	0.560	J	0.215	1.00	ug/L	241281	1	04/21/2017 20:50	JS
Magnesium	822		5.27	100	ug/L	241281	1	04/21/2017 20:50	JS
Manganese	319		0.344	5.00	ug/L	241281	1	04/21/2017 20:50	JS
Nickel	2.43	J	0.210	5.00	ug/L	241281	1	04/21/2017 20:50	JS
Potassium	1280		13.2	100	ug/L	241281	1	04/21/2017 20:50	JS
Selenium	0.392	J	0.264	5.00	ug/L	241281	1	04/21/2017 20:50	JS
Silver	BRL		0.0185	1.00	ug/L	241281	1	04/21/2017 20:50	JS
Sodium	40500		6.39	500	ug/L	241281	1	04/25/2017 18:06	JS
Thallium	BRL		0.192	1.00	ug/L	241281	1	04/21/2017 20:50	JS
Vanadium	42.7		0.170	5.00	ug/L	241281	1	04/21/2017 20:50	JS
Zinc	26.6		0.580	10.0	ug/L	241281	1	04/25/2017 18:06	JS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-001
Project Name:	Aquatech	**Collection Date:**	4/18/2017 9:25:00 AM
Lab ID:	1704G37-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	4.87		0.410	1.00	mg/L	R341087	100	04/19/2017 19:37	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.033		0.010	0.020	mg/L	R341482	1	04/25/2017 14:10	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 15:44	AW
Surr: 4-Bromofluorobenzene	118		0	64.9-131	%REC	241333	1	04/20/2017 15:44	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00006	0.00020	mg/L	241453	1	04/24/2017 20:42	TA
ION SCAN SW9056A									
Nitrate	4.8		0.055	0.25	mg/L	R341333	1	04/19/2017 22:19	JW
Sulfate	8.9		0.12	1.0	mg/L	R341333	1	04/19/2017 22:19	JW
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	241692	1	04/26/2017 23:46	JS
Manganese	35.9		0.344	5.00	ug/L	241692	1	04/26/2017 23:46	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	1.0	J	0.47	2.0	ug/L	241598	1	04/25/2017 13:37	NP
Surr: 4-Bromofluorobenzene	100		0	84.6-119	%REC	241598	1	04/25/2017 13:37	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241598	1	04/25/2017 13:37	NP
Surr: Toluene-d8	98.9		0	85-115	%REC	241598	1	04/25/2017 13:37	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-002
Project Name:	Aquatech	**Collection Date:**	4/18/2017 11:15:00 AM
Lab ID:	1704G37-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/25/2017 01:24	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/25/2017 01:24	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/25/2017 01:24	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/25/2017 01:24	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/25/2017 01:24	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/25/2017 01:24	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/25/2017 01:24	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/25/2017 01:24	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/25/2017 01:24	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Chloroform	0.64	J	0.20	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/25/2017 01:24	NP
cis-1,2-Dichloroethene	1.2		0.28	1.0	ug/L	241557	1	04/25/2017 01:24	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/25/2017 01:24	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/25/2017 01:24	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/25/2017 01:24	NP
Methyl tert-butyl ether	1.5		0.45	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/25/2017 01:24	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/25/2017 01:24	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-002
Project Name:	Aquatech	**Collection Date:**	4/18/2017 11:15:00 AM
Lab ID:	1704G37-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Tetrachloroethene	470		4.6	10	ug/L	241557	10	04/25/2017 01:49	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/25/2017 01:24	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/25/2017 01:24	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/25/2017 01:24	NP
Trichloroethene	2.7		0.30	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/25/2017 01:24	NP
Surr: 4-Bromofluorobenzene	74.5		0	70-130	%REC	241557	1	04/25/2017 01:24	NP
Surr: 4-Bromofluorobenzene	78.5		0	70-130	%REC	241557	10	04/25/2017 01:49	NP
Surr: Dibromofluoromethane	107		0	70-130	%REC	241557	1	04/25/2017 01:24	NP
Surr: Dibromofluoromethane	111		0	70-130	%REC	241557	10	04/25/2017 01:49	NP
Surr: Toluene-d8	98.3		0	70-130	%REC	241557	1	04/25/2017 01:24	NP
Surr: Toluene-d8	99.8		0	70-130	%REC	241557	10	04/25/2017 01:49	NP
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	3020		4.31	50.0	ug/L	241281	1	04/21/2017 20:56	JS
Antimony	BRL		0.197	5.00	ug/L	241281	1	04/21/2017 20:56	JS
Arsenic	7.27		0.156	5.00	ug/L	241281	1	04/21/2017 20:56	JS
Barium	395		0.185	10.0	ug/L	241281	1	04/21/2017 20:56	JS
Beryllium	0.636	J	0.147	1.00	ug/L	241281	1	04/21/2017 20:56	JS
Cadmium	0.156	J	0.148	0.700	ug/L	241281	1	04/21/2017 20:56	JS
Calcium	1530		14.4	100	ug/L	241281	1	04/21/2017 20:56	JS
Chromium	7.50		0.193	5.00	ug/L	241281	1	04/21/2017 20:56	JS
Cobalt	1.98	J	0.188	5.00	ug/L	241281	1	04/21/2017 20:56	JS
Copper	1.87	J	0.126	2.00	ug/L	241281	1	04/21/2017 20:56	JS
Iron	1340		6.47	100	ug/L	241281	1	04/21/2017 20:56	JS
Lead	1.49		0.215	1.00	ug/L	241281	1	04/21/2017 20:56	JS
Magnesium	819		5.27	100	ug/L	241281	1	04/21/2017 20:56	JS
Manganese	120		0.344	5.00	ug/L	241281	1	04/21/2017 20:56	JS
Nickel	3.28	J	0.210	5.00	ug/L	241281	1	04/21/2017 20:56	JS
Potassium	1540		13.2	100	ug/L	241281	1	04/21/2017 20:56	JS
Selenium	BRL		0.264	5.00	ug/L	241281	1	04/21/2017 20:56	JS
Silver	BRL		0.0185	1.00	ug/L	241281	1	04/21/2017 20:56	JS
Sodium	56200		12.8	1000	ug/L	241281	2	04/25/2017 21:03	JS
Thallium	BRL		0.192	1.00	ug/L	241281	1	04/21/2017 20:56	JS
Vanadium	64.0		0.170	5.00	ug/L	241281	1	04/21/2017 20:56	JS
Zinc	21.8		0.580	10.0	ug/L	241281	1	04/25/2017 18:12	JS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-002
Project Name:	Aquatech	**Collection Date:**	4/18/2017 11:15:00 AM
Lab ID:	1704G37-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	11.3		0.820	2.00	mg/L	R341087	200	04/19/2017 19:40	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341482	1	04/25/2017 14:11	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 16:13	AW
Surr: 4-Bromofluorobenzene	116		0	64.9-131	%REC	241333	1	04/20/2017 16:13	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00006	0.00020	mg/L	241453	1	04/24/2017 20:46	TA
ION SCAN SW9056A									
Nitrate	5.2		0.055	0.25	mg/L	R341333	1	04/19/2017 22:34	JW
Sulfate	9.5		0.12	1.0	mg/L	R341333	1	04/19/2017 22:34	JW
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	241692	1	04/26/2017 23:53	JS
Manganese	14.3		0.344	5.00	ug/L	241692	1	04/26/2017 23:53	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	0.60	J	0.47	2.0	ug/L	241598	1	04/25/2017 14:04	NP
Surr: 4-Bromofluorobenzene	100		0	84.6-119	%REC	241598	1	04/25/2017 14:04	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241598	1	04/25/2017 14:04	NP
Surr: Toluene-d8	98.4		0	85-115	%REC	241598	1	04/25/2017 14:04	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-003
Project Name:	Aquatech	**Collection Date:**	4/18/2017 1:50:00 PM
Lab ID:	1704G37-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/25/2017 02:14	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/25/2017 02:14	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/25/2017 02:14	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/25/2017 02:14	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/25/2017 02:14	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/25/2017 02:14	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/25/2017 02:14	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/25/2017 02:14	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/25/2017 02:14	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Chloroform	0.79	J	0.20	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/25/2017 02:14	NP
cis-1,2-Dichloroethene	2.0		0.28	1.0	ug/L	241557	1	04/25/2017 02:14	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/25/2017 02:14	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/25/2017 02:14	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/25/2017 02:14	NP
Methyl tert-butyl ether	1.2		0.45	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/25/2017 02:14	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/25/2017 02:14	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-003
Project Name:	Aquatech	**Collection Date:**	4/18/2017 1:50:00 PM
Lab ID:	1704G37-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Tetrachloroethene	680		4.6	10	ug/L	241557	10	04/25/2017 02:39	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/25/2017 02:14	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/25/2017 02:14	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/25/2017 02:14	NP
Trichloroethene	4.4		0.30	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/25/2017 02:14	NP
Surr: 4-Bromofluorobenzene	74.7		0	70-130	%REC	241557	1	04/25/2017 02:14	NP
Surr: 4-Bromofluorobenzene	75.6		0	70-130	%REC	241557	10	04/25/2017 02:39	NP
Surr: Dibromofluoromethane	109		0	70-130	%REC	241557	1	04/25/2017 02:14	NP
Surr: Dibromofluoromethane	108		0	70-130	%REC	241557	10	04/25/2017 02:39	NP
Surr: Toluene-d8	101		0	70-130	%REC	241557	1	04/25/2017 02:14	NP
Surr: Toluene-d8	100		0	70-130	%REC	241557	10	04/25/2017 02:39	NP
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	522		4.31	50.0	ug/L	241281	1	04/21/2017 21:03	JS
Antimony	BRL		0.197	5.00	ug/L	241281	1	04/21/2017 21:03	JS
Arsenic	0.511	J	0.156	5.00	ug/L	241281	1	04/21/2017 21:03	JS
Barium	89.9		0.185	10.0	ug/L	241281	1	04/21/2017 21:03	JS
Beryllium	0.176	J	0.147	1.00	ug/L	241281	1	04/21/2017 21:03	JS
Cadmium	BRL		0.148	0.700	ug/L	241281	1	04/21/2017 21:03	JS
Calcium	2850		14.4	100	ug/L	241281	1	04/21/2017 21:03	JS
Chromium	7.12		0.193	5.00	ug/L	241281	1	04/21/2017 21:03	JS
Cobalt	1.12	J	0.188	5.00	ug/L	241281	1	04/21/2017 21:03	JS
Copper	1.44	J	0.126	2.00	ug/L	241281	1	04/21/2017 21:03	JS
Iron	559		6.47	100	ug/L	241281	1	04/21/2017 21:03	JS
Lead	0.690	J	0.215	1.00	ug/L	241281	1	04/21/2017 21:03	JS
Magnesium	1120		5.27	100	ug/L	241281	1	04/21/2017 21:03	JS
Manganese	22.9		0.344	5.00	ug/L	241281	1	04/21/2017 21:03	JS
Nickel	1.38	J	0.210	5.00	ug/L	241281	1	04/21/2017 21:03	JS
Potassium	1440		13.2	100	ug/L	241281	1	04/21/2017 21:03	JS
Selenium	BRL		0.264	5.00	ug/L	241281	1	04/21/2017 21:03	JS
Silver	0.0400	J	0.0185	1.00	ug/L	241281	1	04/21/2017 21:03	JS
Sodium	27300		6.39	500	ug/L	241281	1	04/25/2017 18:18	JS
Thallium	BRL		0.192	1.00	ug/L	241281	1	04/21/2017 21:03	JS
Vanadium	4.08	J	0.170	5.00	ug/L	241281	1	04/21/2017 21:03	JS
Zinc	18.6		0.580	10.0	ug/L	241281	1	04/25/2017 18:18	JS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-003
Project Name:	Aquatech	**Collection Date:**	4/18/2017 1:50:00 PM
Lab ID:	1704G37-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	1.49		0.0820	0.200	mg/L	R341087	20	04/19/2017 19:41	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341482	1	04/25/2017 14:12	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 16:42	AW
Surr: 4-Bromofluorobenzene	114		0	64.9-131	%REC	241333	1	04/20/2017 16:42	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00006	0.00020	mg/L	241453	1	04/24/2017 20:49	TA
ION SCAN SW9056A									
Nitrate	5.3		0.055	0.25	mg/L	R341333	1	04/19/2017 23:34	JW
Sulfate	9.9		0.12	1.0	mg/L	R341333	1	04/19/2017 23:34	JW
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	241692	1	04/26/2017 23:59	JS
Manganese	8.65		0.344	5.00	ug/L	241692	1	04/26/2017 23:59	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	0.94	J	0.47	2.0	ug/L	241598	1	04/25/2017 14:31	NP
Surr: 4-Bromofluorobenzene	99		0	84.6-119	%REC	241598	1	04/25/2017 14:31	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241598	1	04/25/2017 14:31	NP
Surr: Toluene-d8	99.8		0	85-115	%REC	241598	1	04/25/2017 14:31	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-004
Project Name:	Aquatech	**Collection Date:**	4/18/2017 3:35:00 PM
Lab ID:	1704G37-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/24/2017 21:17	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/24/2017 21:17	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/24/2017 21:17	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/24/2017 21:17	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/24/2017 21:17	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/24/2017 21:17	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/24/2017 21:17	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/24/2017 21:17	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/24/2017 21:17	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Chloroform	BRL		0.20	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/24/2017 21:17	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	241557	1	04/24/2017 21:17	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/24/2017 21:17	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/24/2017 21:17	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/24/2017 21:17	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/24/2017 21:17	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/24/2017 21:17	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-004
Project Name:	Aquatech	**Collection Date:**	4/18/2017 3:35:00 PM
Lab ID:	1704G37-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Tetrachloroethene	64		0.46	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 21:17	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/24/2017 21:17	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/24/2017 21:17	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/24/2017 21:17	NP
Surr: 4-Bromofluorobenzene	79.2		0	70-130	%REC	241557	1	04/24/2017 21:17	NP
Surr: Dibromofluoromethane	113		0	70-130	%REC	241557	1	04/24/2017 21:17	NP
Surr: Toluene-d8	102		0	70-130	%REC	241557	1	04/24/2017 21:17	NP
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	634		4.31	50.0	ug/L	241281	1	04/21/2017 21:27	JS
Antimony	BRL		0.197	5.00	ug/L	241281	1	04/21/2017 21:27	JS
Arsenic	BRL		0.156	5.00	ug/L	241281	1	04/21/2017 21:27	JS
Barium	247		0.185	10.0	ug/L	241281	1	04/21/2017 21:27	JS
Beryllium	0.385	J	0.147	1.00	ug/L	241281	1	04/21/2017 21:27	JS
Cadmium	1.20		0.148	0.700	ug/L	241281	1	04/21/2017 21:27	JS
Calcium	933		14.4	100	ug/L	241281	1	04/21/2017 21:27	JS
Chromium	3.65	J	0.193	5.00	ug/L	241281	1	04/21/2017 21:27	JS
Cobalt	3.35	J	0.188	5.00	ug/L	241281	1	04/21/2017 21:27	JS
Copper	5.73		0.126	2.00	ug/L	241281	1	04/21/2017 21:27	JS
Iron	447		6.47	100	ug/L	241281	1	04/21/2017 21:27	JS
Lead	1.98		0.215	1.00	ug/L	241281	1	04/21/2017 21:27	JS
Magnesium	3090		5.27	100	ug/L	241281	1	04/21/2017 21:27	JS
Manganese	30.5		0.344	5.00	ug/L	241281	1	04/21/2017 21:27	JS
Nickel	1.94	J	0.210	5.00	ug/L	241281	1	04/21/2017 21:27	JS
Potassium	3510		13.2	100	ug/L	241281	1	04/21/2017 21:27	JS
Selenium	BRL		0.264	5.00	ug/L	241281	1	04/21/2017 21:27	JS
Silver	0.122	J	0.0185	1.00	ug/L	241281	1	04/21/2017 21:27	JS
Sodium	9860		6.39	500	ug/L	241281	1	04/25/2017 18:24	JS
Thallium	BRL		0.192	1.00	ug/L	241281	1	04/21/2017 21:27	JS
Vanadium	BRL		0.170	5.00	ug/L	241281	1	04/21/2017 21:27	JS
Zinc	28.5		0.580	10.0	ug/L	241281	1	04/25/2017 18:24	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0351		0.00410	0.0100	mg/L	R341087	1	04/19/2017 19:30	AM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-004
Project Name:	Aquatech	**Collection Date:**	4/18/2017 3:35:00 PM
Lab ID:	1704G37-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341482	1	04/25/2017 14:13	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 17:10	AW
Surr: 4-Bromofluorobenzene	136	S	0	64.9-131	%REC	241333	1	04/20/2017 17:10	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00006	0.00020	mg/L	241453	1	04/24/2017 20:52	TA
ION SCAN SW9056A									
Nitrate	4.6		0.055	0.25	mg/L	R341333	1	04/19/2017 23:49	JW
Sulfate	5.9		0.12	1.0	mg/L	R341333	1	04/19/2017 23:49	JW
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	241692	1	04/27/2017 00:05	JS
Manganese	23.6		0.344	5.00	ug/L	241692	1	04/27/2017 00:05	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	241598	1	04/25/2017 14:58	NP
Surr: 4-Bromofluorobenzene	99.4		0	84.6-119	%REC	241598	1	04/25/2017 14:58	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241598	1	04/25/2017 14:58	NP
Surr: Toluene-d8	99.5		0	85-115	%REC	241598	1	04/25/2017 14:58	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-005
Project Name:	Aquatech	**Collection Date:**	4/18/2017 5:30:00 PM
Lab ID:	1704G37-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/24/2017 21:41	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/24/2017 21:41	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/24/2017 21:41	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/24/2017 21:41	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/24/2017 21:41	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/24/2017 21:41	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/24/2017 21:41	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/24/2017 21:41	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/24/2017 21:41	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Chloroform	BRL		0.20	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/24/2017 21:41	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	241557	1	04/24/2017 21:41	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/24/2017 21:41	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/24/2017 21:41	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/24/2017 21:41	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/24/2017 21:41	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/24/2017 21:41	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-005
Project Name:	Aquatech	**Collection Date:**	4/18/2017 5:30:00 PM
Lab ID:	1704G37-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Tetrachloroethene	8.4		0.46	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 21:41	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/24/2017 21:41	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/24/2017 21:41	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/24/2017 21:41	NP
Surr: 4-Bromofluorobenzene	76		0	70-130	%REC	241557	1	04/24/2017 21:41	NP
Surr: Dibromofluoromethane	110		0	70-130	%REC	241557	1	04/24/2017 21:41	NP
Surr: Toluene-d8	101		0	70-130	%REC	241557	1	04/24/2017 21:41	NP
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	172		4.31	50.0	ug/L	241281	1	04/21/2017 21:34	JS
Antimony	BRL		0.197	5.00	ug/L	241281	1	04/21/2017 21:34	JS
Arsenic	0.329	J	0.156	5.00	ug/L	241281	1	04/21/2017 21:34	JS
Barium	176		0.185	10.0	ug/L	241281	1	04/21/2017 21:34	JS
Beryllium	0.296	J	0.147	1.00	ug/L	241281	1	04/21/2017 21:34	JS
Cadmium	1.01		0.148	0.700	ug/L	241281	1	04/21/2017 21:34	JS
Calcium	1200		14.4	100	ug/L	241281	1	04/21/2017 21:34	JS
Chromium	1.78	J	0.193	5.00	ug/L	241281	1	04/21/2017 21:34	JS
Cobalt	7.92		0.188	5.00	ug/L	241281	1	04/21/2017 21:34	JS
Copper	2.52		0.126	2.00	ug/L	241281	1	04/21/2017 21:34	JS
Iron	80.0	J	6.47	100	ug/L	241281	1	04/21/2017 21:34	JS
Lead	1.16		0.215	1.00	ug/L	241281	1	04/21/2017 21:34	JS
Magnesium	2270		5.27	100	ug/L	241281	1	04/21/2017 21:34	JS
Manganese	514		0.344	5.00	ug/L	241281	1	04/21/2017 21:34	JS
Nickel	4.80	J	0.210	5.00	ug/L	241281	1	04/21/2017 21:34	JS
Potassium	4570		13.2	100	ug/L	241281	1	04/21/2017 21:34	JS
Selenium	0.617	J	0.264	5.00	ug/L	241281	1	04/21/2017 21:34	JS
Silver	0.0270	J	0.0185	1.00	ug/L	241281	1	04/21/2017 21:34	JS
Sodium	6860		6.39	500	ug/L	241281	1	04/25/2017 18:31	JS
Thallium	0.510	J	0.192	1.00	ug/L	241281	1	04/21/2017 21:34	JS
Vanadium	BRL		0.170	5.00	ug/L	241281	1	04/21/2017 21:34	JS
Zinc	35.8		0.580	10.0	ug/L	241281	1	04/25/2017 18:31	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00647	J	0.00410	0.0100	mg/L	R341087	1	04/19/2017 19:31	AM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041817-SAG-005
Project Name:	Aquatech	**Collection Date:**	4/18/2017 5:30:00 PM
Lab ID:	1704G37-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341482	1	04/25/2017 14:19	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241333	1	04/20/2017 17:39	AW
Surr: 4-Bromofluorobenzene	117		0	64.9-131	%REC	241333	1	04/20/2017 17:39	AW
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00006	0.00020	mg/L	241453	1	04/24/2017 20:55	TA
ION SCAN SW9056A									
Nitrate	2.4		0.055	0.25	mg/L	R341333	1	04/20/2017 00:05	JW
Sulfate	7.7		0.12	1.0	mg/L	R341333	1	04/20/2017 00:05	JW
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	241692	1	04/27/2017 00:11	JS
Manganese	452		0.344	5.00	ug/L	241692	1	04/27/2017 00:11	JS
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	0.57	J	0.47	2.0	ug/L	241598	1	04/25/2017 15:25	NP
Surr: 4-Bromofluorobenzene	99.1		0	84.6-119	%REC	241598	1	04/25/2017 15:25	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241598	1	04/25/2017 15:25	NP
Surr: Toluene-d8	99.1		0	85-115	%REC	241598	1	04/25/2017 15:25	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aquatech	**Collection Date:**	4/19/2017
Lab ID:	1704G37-006	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241557	1	04/24/2017 17:57	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241557	1	04/24/2017 17:57	NP
1,4-Dioxane	BRL		26	150	ug/L	241557	1	04/24/2017 17:57	NP
2-Butanone	BRL		2.5	10	ug/L	241557	1	04/24/2017 17:57	NP
2-Hexanone	BRL		0.67	10	ug/L	241557	1	04/24/2017 17:57	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241557	1	04/24/2017 17:57	NP
Acetone	BRL		3.6	20	ug/L	241557	1	04/24/2017 17:57	NP
Benzene	BRL		0.37	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Bromoform	BRL		0.19	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Bromomethane	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241557	1	04/24/2017 17:57	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241557	1	04/24/2017 17:57	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Chloroethane	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Chloroform	BRL		0.20	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Chloromethane	BRL		0.21	1.0	ug/L	241557	1	04/24/2017 17:57	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	241557	1	04/24/2017 17:57	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241557	1	04/24/2017 17:57	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Freon-113	BRL		0.32	5.0	ug/L	241557	1	04/24/2017 17:57	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241557	1	04/24/2017 17:57	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	241557	1	04/24/2017 17:57	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241557	1	04/24/2017 17:57	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 27-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aquatech	**Collection Date:**	4/19/2017
Lab ID:	1704G37-006	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)									
Styrene	BRL		0.15	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Toluene	BRL		0.39	1.0	ug/L	241557	1	04/24/2017 17:57	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241557	1	04/24/2017 17:57	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241557	1	04/24/2017 17:57	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241557	1	04/24/2017 17:57	NP
Surr: 4-Bromofluorobenzene	83.4		0	70-130	%REC	241557	1	04/24/2017 17:57	NP
Surr: Dibromofluoromethane	109		0	70-130	%REC	241557	1	04/24/2017 17:57	NP
Surr: Toluene-d8	101		0	70-130	%REC	241557	1	04/24/2017 17:57	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM (SW5030B)									
1,4-Dioxane	BRL		0.47	2.0	ug/L	241598	1	04/25/2017 10:54	NP
Surr: 4-Bromofluorobenzene	101		0	84.6-119	%REC	241598	1	04/25/2017 10:54	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241598	1	04/25/2017 10:54	NP
Surr: Toluene-d8	99.4		0	85-115	%REC	241598	1	04/25/2017 10:54	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Clear Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: GHD Services, Inc. AES Work Order Number: 1704G37

2. Carrier: FedEx ■ UPS ☐ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	●	○	○		
5.	Custody seals intact on shipping container?	●	○	○		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 4.2 °C Cooler 2 Temperature 3.3 °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MJ 4/19/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	○	●	○	incomplete info ■ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). TR 4/19/17

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked?	●	○	○		As applicable.
29.	Containers meet preservation guidelines?	●	○	○		Checked at analysis.
30.	Was pH adjusted?	○	○	●		Checked at analysis.

I certify that I have completed sections 28-30 (dated initials). TR 4/19/17

Checklist 1/19/17 Rev 0.

Locked

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Lab Order: 1704G37

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1704G37-001A	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00PM	04/25/2017
1704G37-001A	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00AM	04/25/2017
1704G37-001B	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00AM	04/20/2017
1704G37-001C	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	ION SCAN			04/19/2017
1704G37-001D	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704G37-001E	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	Phosphorus, ortho			04/19/2017
1704G37-001F	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/21/2017
1704G37-001F	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/25/2017
1704G37-001F	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	TOTAL MERCURY		4/24/2017 2:06:00PM	04/24/2017
1704G37-001G	GW-013926-041817-SAG-001	4/18/2017 9:25:00AM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00PM	04/26/2017
1704G37-002A	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00PM	04/25/2017
1704G37-002A	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00AM	04/25/2017
1704G37-002B	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00AM	04/20/2017
1704G37-002C	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	ION SCAN			04/19/2017
1704G37-002D	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704G37-002E	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	Phosphorus, ortho			04/19/2017
1704G37-002F	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/21/2017
1704G37-002F	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/25/2017
1704G37-002F	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	TOTAL MERCURY		4/24/2017 2:06:00PM	04/24/2017
1704G37-002G	GW-013926-041817-SAG-002	4/18/2017 11:15:00AM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00PM	04/26/2017
1704G37-003A	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00PM	04/25/2017
1704G37-003A	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00AM	04/25/2017
1704G37-003B	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00AM	04/20/2017
1704G37-003C	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	ION SCAN			04/19/2017
1704G37-003D	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704G37-003E	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	Phosphorus, ortho			04/19/2017
1704G37-003F	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/21/2017
1704G37-003F	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/25/2017
1704G37-003F	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	TOTAL MERCURY		4/24/2017 2:06:00PM	04/24/2017

Client: GHD Services, Inc.
Project Name: Aquatech
Lab Order: 1704G37

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1704G37-003G	GW-013926-041817-SAG-003	4/18/2017 1:50:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00PM	04/26/2017
1704G37-004A	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00PM	04/24/2017
1704G37-004A	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00AM	04/25/2017
1704G37-004B	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00AM	04/20/2017
1704G37-004C	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	ION SCAN			04/19/2017
1704G37-004D	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704G37-004E	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	Phosphorus, ortho			04/19/2017
1704G37-004F	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/21/2017
1704G37-004F	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/25/2017
1704G37-004F	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	TOTAL MERCURY		4/24/2017 2:06:00PM	04/24/2017
1704G37-004G	GW-013926-041817-SAG-004	4/18/2017 3:35:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00PM	04/27/2017
1704G37-005A	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00PM	04/24/2017
1704G37-005A	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00AM	04/25/2017
1704G37-005B	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/20/2017 9:10:00AM	04/20/2017
1704G37-005C	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	ION SCAN			04/20/2017
1704G37-005D	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704G37-005E	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	Phosphorus, ortho			04/19/2017
1704G37-005F	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/21/2017
1704G37-005F	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	Total Metals by ICP/MS		4/20/2017 4:24:00PM	04/25/2017
1704G37-005F	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	TOTAL MERCURY		4/24/2017 2:06:00PM	04/24/2017
1704G37-005G	GW-013926-041817-SAG-005	4/18/2017 5:30:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 6:21:00PM	04/27/2017
1704G37-006A	TRIP BLANK	4/19/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/24/2017 3:51:00PM	04/24/2017
1704G37-006A	TRIP BLANK	4/19/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/25/2017 9:32:00AM	04/25/2017

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241281

Sample ID: **MB-241281** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475441**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	5.530	50.0									J
Antimony	BRL	5.00									
Arsenic	BRL	5.00									
Barium	BRL	10.0									
Beryllium	BRL	1.00									
Cadmium	BRL	0.700									
Calcium	BRL	100									
Chromium	0.6180	5.00									J
Cobalt	BRL	5.00									
Copper	0.3830	2.00									J
Iron	BRL	100									
Lead	BRL	1.00									
Magnesium	BRL	100									
Manganese	BRL	5.00									
Nickel	BRL	5.00									
Potassium	BRL	100									
Selenium	BRL	5.00									
Silver	0.1060	1.00									J
Sodium	191.1	500									J
Thallium	BRL	1.00									
Vanadium	BRL	5.00									
Zinc	0.7570	10.0									J

Sample ID: **LCS-241281** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475442**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241281

Sample ID: **LCS-241281** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475442**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	988.6	50.0	1000	5.530	98.3	80	120				
Antimony	99.48	5.00	100.0		99.5	80	120				
Arsenic	101.7	5.00	100.0		102	80	120				
Barium	100.4	10.0	100.0		100	80	120				
Beryllium	100.7	1.00	100.0		101	80	120				
Cadmium	99.44	0.700	100.0		99.4	80	120				
Calcium	982.3	100	1000		98.2	80	120				
Chromium	100.3	5.00	100.0	0.6180	99.7	80	120				
Cobalt	100.8	5.00	100.0		101	80	120				
Copper	102.7	2.00	100.0	0.3830	102	80	120				
Iron	989.3	100	1000		98.9	80	120				
Lead	97.89	1.00	100.0		97.9	80	120				
Magnesium	997.5	100	1000		99.8	80	120				
Manganese	98.08	5.00	100.0		98.1	80	120				
Nickel	102.7	5.00	100.0		103	80	120				
Potassium	999.8	100	1000		100.0	80	120				
Selenium	102.8	5.00	100.0		103	80	120				
Silver	10.26	1.00	10.00	0.1060	102	80	120				
Sodium	1146	500	1000	191.1	95.5	80	120				
Thallium	94.56	1.00	100.0		94.6	80	120				
Vanadium	99.14	5.00	100.0		99.1	80	120				
Zinc	99.43	10.0	100.0	0.7570	98.7	80	120				

Sample ID: **1704F26-004AMS** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475444**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	1017	50.0	1000	42.35	97.5	75	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241281

Sample ID: **1704F26-004AMS** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475444**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	101.7	5.00	100.0	2.458	99.2	75	125				
Arsenic	101.3	5.00	100.0		101	75	125				
Barium	110.8	10.0	100.0	3.276	108	75	125				
Beryllium	101.3	1.00	100.0		101	75	125				
Cadmium	99.78	0.700	100.0		99.8	75	125				
Calcium	2521	100	1000	1695	82.6	75	125				
Chromium	100.9	5.00	100.0	1.250	99.6	75	125				
Cobalt	100.4	5.00	100.0	0.2120	100	75	125				
Copper	135.6	2.00	100.0	34.73	101	75	125				
Iron	1044	100	1000	68.74	97.5	75	125				
Lead	102.7	1.00	100.0	0.7870	102	75	125				
Magnesium	1064	100	1000	68.74	99.5	75	125				
Manganese	110.4	5.00	100.0	13.78	96.6	75	125				
Nickel	102.8	5.00	100.0	0.8220	102	75	125				
Potassium	1160	100	1000	185.0	97.5	75	125				
Selenium	102.3	5.00	100.0		102	75	125				
Silver	10.15	1.00	10.00	0.05500	101	75	125				
Sodium	1326	500	1000	394.8	93.1	75	125				
Thallium	95.30	1.00	100.0	0.6910	94.6	75	125				
Vanadium	97.94	5.00	100.0		97.9	75	125				
Zinc	140.4	10.0	100.0	90.63	49.8	75	125				S

Sample ID: **1704F26-004AMSD** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475445**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	1030	50.0	1000	42.35	98.8	75	125	1017	1.27	20	
Antimony	100.9	5.00	100.0	2.458	98.4	75	125	101.7	0.790	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241281

Sample ID: **1704F26-004AMSD** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341343**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241281** Analysis Date: **04/21/2017** Seq No: **7475445**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	101.1	5.00	100.0		101	75	125	101.3	0.198	20	
Barium	101.3	10.0	100.0	3.276	98.0	75	125	110.8	8.96	20	
Beryllium	101.1	1.00	100.0		101	75	125	101.3	0.198	20	
Cadmium	99.36	0.700	100.0		99.4	75	125	99.78	0.422	20	
Calcium	2608	100	1000	1695	91.3	75	125	2521	3.39	20	
Chromium	100.2	5.00	100.0	1.250	99.0	75	125	100.9	0.696	20	
Cobalt	99.96	5.00	100.0	0.2120	99.7	75	125	100.4	0.439	20	
Copper	136.6	2.00	100.0	34.73	102	75	125	135.6	0.735	20	
Iron	1034	100	1000	68.74	96.5	75	125	1044	0.962	20	
Lead	97.62	1.00	100.0	0.7870	96.8	75	125	102.7	5.07	20	
Magnesium	1071	100	1000	68.74	100	75	125	1064	0.656	20	
Manganese	110.2	5.00	100.0	13.78	96.4	75	125	110.4	0.181	20	
Nickel	102.3	5.00	100.0	0.8220	101	75	125	102.8	0.488	20	
Potassium	1200	100	1000	185.0	102	75	125	1160	3.39	20	
Selenium	101.8	5.00	100.0		102	75	125	102.3	0.490	20	
Silver	10.04	1.00	10.00	0.05500	99.8	75	125	10.15	1.09	20	
Sodium	1422	500	1000	394.8	103	75	125	1326	6.99	20	
Thallium	95.35	1.00	100.0	0.6910	94.7	75	125	95.30	0.052	20	
Vanadium	97.99	5.00	100.0		98.0	75	125	97.94	0.051	20	
Zinc	152.4	10.0	100.0	90.63	61.8	75	125	140.4	8.20	20	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241333

Sample ID: **MB-241333** Client ID: Units: **ug/L** Prep Date: **04/19/2017** Run No: **341108**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241333** Analysis Date: **04/20/2017** Seq No: **7471342**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.201	0	5.000		104	64.9	131				

Sample ID: **LCS-241333** Client ID: Units: **ug/L** Prep Date: **04/19/2017** Run No: **341108**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241333** Analysis Date: **04/20/2017** Seq No: **7471343**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09600	0.020	0.1000		96.0	60	140				
Surr: 4-Bromofluorobenzene	5.303	0	5.000		106	64.9	131				

Sample ID: **LCSD-241333** Client ID: Units: **ug/L** Prep Date: **04/19/2017** Run No: **341108**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241333** Analysis Date: **04/20/2017** Seq No: **7471344**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1000	0.020	0.1000		100	60	140	0.09600	4.08	20	
Surr: 4-Bromofluorobenzene	5.335	0	5.000		107	64.9	131	5.303	0	0	

Sample ID: **1704F88-001BMS** Client ID: Units: **ug/L** Prep Date: **04/20/2017** Run No: **341108**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241333** Analysis Date: **04/20/2017** Seq No: **7471347**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1027	0.020	0.1007		102	65.6	136				
Surr: 4-Bromofluorobenzene	5.637	0	5.036		112	64.9	131				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241453

Sample ID: **MB-241453** Client ID: Units: **mg/L** Prep Date: **04/24/2017** Run No: **341417**
SampleType: **MBLK** TestCode: **Mercury, Total SW7470A** BatchID: **241453** Analysis Date: **04/24/2017** Seq No: **7476337**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.00020									

Sample ID: **LCS-241453** Client ID: Units: **mg/L** Prep Date: **04/24/2017** Run No: **341417**
SampleType: **LCS** TestCode: **Mercury, Total SW7470A** BatchID: **241453** Analysis Date: **04/24/2017** Seq No: **7476338**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004476	0.00020	0.0050		89.5	80	120				

Sample ID: **1704F92-001AMS** Client ID: Units: **mg/L** Prep Date: **04/24/2017** Run No: **341417**
SampleType: **MS** TestCode: **Mercury, Total SW7470A** BatchID: **241453** Analysis Date: **04/24/2017** Seq No: **7476340**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004913	0.00020	0.0050		98.3	70	130				

Sample ID: **1704F92-001AMSD** Client ID: Units: **mg/L** Prep Date: **04/24/2017** Run No: **341417**
SampleType: **MSD** TestCode: **Mercury, Total SW7470A** BatchID: **241453** Analysis Date: **04/24/2017** Seq No: **7476341**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004914	0.00020	0.0050		98.3	70	130	0.004913	0.018	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **MB-241557** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475880**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **MB-241557** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475880**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	41.25	0	50.00		82.5	70	130				
Surr: Dibromofluoromethane	52.83	0	50.00		106	70	130				
Surr: Toluene-d8	50.03	0	50.00		100	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **LCS-241557** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475879**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	57.35	1.0	50.00		115	70	130				
1,1,2,2-Tetrachloroethane	46.05	1.0	50.00		92.1	70	130				
1,1,2-Trichloroethane	48.86	1.0	50.00		97.7	70	130				
1,1-Dichloroethane	47.33	1.0	50.00		94.7	70	130				
1,1-Dichloroethene	54.05	2.0	50.00		108	60	140				
1,2,4-Trichlorobenzene	40.02	1.0	50.00		80.0	70	130				
1,2-Dibromo-3-chloropropane	41.43	1.0	50.00		82.9	70	130				
1,2-Dichlorobenzene	41.00	1.0	50.00		82.0	70	130				
1,2-Dichloroethane	46.30	1.0	50.00		92.6	70	130				
1,2-Dichloropropane	44.52	1.0	50.00		89.0	70	130				
1,3-Dichlorobenzene	42.80	1.0	50.00		85.6	70	130				
1,4-Dichlorobenzene	44.04	1.0	50.00		88.1	70	130				
Benzene	51.20	1.0	50.00		102	70	130				
Bromodichloromethane	44.31	1.0	50.00		88.6	70	130				
Bromoform	43.04	1.0	50.00		86.1	70	130				
Carbon tetrachloride	56.41	2.0	50.00		113	70	130				
Chlorobenzene	46.97	1.0	50.00		93.9	70	130				
Chloroform	49.25	1.0	50.00		98.5	70	130				
cis-1,2-Dichloroethene	48.79	1.0	50.00		97.6	70	130				
cis-1,3-Dichloropropene	43.05	1.0	50.00		86.1	70	130				
Dibromochloromethane	42.65	1.0	50.00		85.3	70	130				
Ethylbenzene	49.99	1.0	50.00		100.0	70	130				
Isopropylbenzene	42.53	1.0	50.00		85.1	70	130				
Methylene chloride	52.22	5.0	50.00		104	70	130				
Styrene	52.12	1.0	50.00		104	70	130				
Tetrachloroethene	50.58	1.0	50.00		101	70	130				
Toluene	51.09	1.0	50.00		102	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **LCS-241557** Client ID:
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **241557**
Prep Date: **04/24/2017** Analysis Date: **04/24/2017**
Run No: **341400** Seq No: **7475879**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	53.07	2.0	50.00		106	70	130				
trans-1,3-Dichloropropene	41.75	2.0	50.00		83.5	70	130				
Trichloroethene	49.71	1.0	50.00		99.4	70	130				
Vinyl chloride	63.43	1.0	50.00		127	70	130				
Xylenes, Total	149.0	1.0	150.0		99.3	70	130				
Surr: 4-Bromofluorobenzene	48.41	0	50.00		96.8	70	130				
Surr: Dibromofluoromethane	53.19	0	50.00		106	70	130				
Surr: Toluene-d8	50.85	0	50.00		102	70	130				

Sample ID: **1704F88-001AMS** Client ID:
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **241557**
Prep Date: **04/24/2017** Analysis Date: **04/24/2017**
Run No: **341400** Seq No: **7475897**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.10	1.0	50.00		118	72.2	142				
1,1,2,2-Tetrachloroethane	46.58	1.0	50.00		93.2	69.5	127				
1,1,2-Trichloroethane	52.98	1.0	50.00		106	75.4	127				
1,1-Dichloroethane	50.10	1.0	50.00		100	64.4	128				
1,1-Dichloroethene	117.2	2.0	100.0		117	64.3	149				
1,2,4-Trichlorobenzene	32.65	1.0	50.00		65.3	62.3	123				
1,2-Dibromo-3-chloropropane	37.17	1.0	50.00		74.3	58.9	131				
1,2-Dichlorobenzene	39.13	1.0	50.00		78.3	66.8	125				
1,2-Dichloroethane	49.92	1.0	50.00		99.8	71.9	139				
1,2-Dichloropropane	46.33	1.0	50.00		92.7	73.2	126				
1,3-Dichlorobenzene	41.29	1.0	50.00		82.6	69.7	123				
1,4-Dichlorobenzene	42.99	1.0	50.00		86.0	66.8	126				
Benzene	107.7	1.0	100.0		108	71.6	132				
Bromodichloromethane	44.27	1.0	50.00		88.5	71.8	133				
Bromoform	42.65	1.0	50.00		85.3	58.2	132				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **1704F88-001AMS** Client ID: . Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475897**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Carbon tetrachloride	58.01	2.0	50.00		116	61.8	142				
Chlorobenzene	98.53	1.0	100.0		98.5	73.1	126				
Chloroform	54.16	1.0	50.00		108	70.1	133				
cis-1,2-Dichloroethene	50.99	1.0	50.00		102	71.4	136				
cis-1,3-Dichloropropene	39.72	1.0	50.00		79.4	65.9	128				
Dibromochloromethane	42.09	1.0	50.00		84.2	63.8	134				
Ethylbenzene	51.43	1.0	50.00		103	81.2	130				
Isopropylbenzene	40.11	1.0	50.00		80.2	66	127				
Methylene chloride	57.44	5.0	50.00		115	68.4	135				
Styrene	53.48	1.0	50.00		107	70.1	128				
Tetrachloroethene	51.21	1.0	50.00		102	69.1	133				
Toluene	111.7	1.0	100.0		112	72.5	135				
trans-1,2-Dichloroethene	55.23	2.0	50.00		110	62.4	132				
trans-1,3-Dichloropropene	39.34	2.0	50.00		78.7	69.7	137				
Trichloroethene	103.6	1.0	100.0		104	70.2	132				
Vinyl chloride	71.83	1.0	50.00		144	55.9	136				S
Xylenes, Total	152.0	1.0	150.0		101	76.1	139				
Surr: 4-Bromofluorobenzene	48.91	0	50.00		97.8	70	130				
Surr: Dibromofluoromethane	54.35	0	50.00		109	70	130				
Surr: Toluene-d8	52.39	0	50.00		105	70	130				

Sample ID: **1704F88-001AMSD** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241557** Analysis Date: **04/24/2017** Seq No: **7475898**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	56.14	1.0	50.00		112	72.2	142	59.10	5.14	20	
1,1,2,2-Tetrachloroethane	47.47	1.0	50.00		94.9	69.5	127	46.58	1.89	20	
1,1,2-Trichloroethane	49.94	1.0	50.00		99.9	75.4	127	52.98	5.91	20	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **1704F88-001AMSD** Client ID:
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **241557**
Prep Date: **04/24/2017** Analysis Date: **04/24/2017**
Run No: **341400** Seq No: **7475898**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethane	47.72	1.0	50.00		95.4	64.4	128	50.10	4.87	20	
1,1-Dichloroethene	109.1	2.0	100.0		109	64.3	149	117.2	7.18	30.8	
1,2,4-Trichlorobenzene	35.52	1.0	50.00		71.0	62.3	123	32.65	8.42	36.8	
1,2-Dibromo-3-chloropropane	38.56	1.0	50.00		77.1	58.9	131	37.17	3.67	20	
1,2-Dichlorobenzene	39.95	1.0	50.00		79.9	66.8	125	39.13	2.07	20	
1,2-Dichloroethane	47.08	1.0	50.00		94.2	71.9	139	49.92	5.86	20	
1,2-Dichloropropane	45.70	1.0	50.00		91.4	73.2	126	46.33	1.37	20	
1,3-Dichlorobenzene	42.80	1.0	50.00		85.6	69.7	123	41.29	3.59	20	
1,4-Dichlorobenzene	44.22	1.0	50.00		88.4	66.8	126	42.99	2.82	20	
Benzene	102.5	1.0	100.0		102	71.6	132	107.7	4.99	20.7	
Bromodichloromethane	42.92	1.0	50.00		85.8	71.8	133	44.27	3.10	20	
Bromoform	40.16	1.0	50.00		80.3	58.2	132	42.65	6.01	20	
Carbon tetrachloride	56.42	2.0	50.00		113	61.8	142	58.01	2.78	20	
Chlorobenzene	94.13	1.0	100.0		94.1	73.1	126	98.53	4.57	26.6	
Chloroform	50.57	1.0	50.00		101	70.1	133	54.16	6.86	20	
cis-1,2-Dichloroethene	49.43	1.0	50.00		98.9	71.4	136	50.99	3.11	20	
cis-1,3-Dichloropropene	38.93	1.0	50.00		77.9	65.9	128	39.72	2.01	20	
Dibromochloromethane	40.70	1.0	50.00		81.4	63.8	134	42.09	3.36	20	
Ethylbenzene	49.73	1.0	50.00		99.5	81.2	130	51.43	3.36	20	
Isopropylbenzene	42.03	1.0	50.00		84.1	66	127	40.11	4.67	20	
Methylene chloride	55.92	5.0	50.00		112	68.4	135	57.44	2.68	20	
Styrene	51.75	1.0	50.00		104	70.1	128	53.48	3.29	20	
Tetrachloroethene	48.65	1.0	50.00		97.3	69.1	133	51.21	5.13	20	
Toluene	104.9	1.0	100.0		105	72.5	135	111.7	6.28	23.2	
trans-1,2-Dichloroethene	51.91	2.0	50.00		104	62.4	132	55.23	6.20	20	
trans-1,3-Dichloropropene	38.92	2.0	50.00		77.8	69.7	137	39.34	1.07	20	
Trichloroethene	99.13	1.0	100.0		99.1	70.2	132	103.6	4.38	27.7	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241557

Sample ID: **1704F88-001AMSD** Client ID:
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **241557**
Prep Date: **04/24/2017** Analysis Date: **04/24/2017**
Run No: **341400** Seq No: **7475898**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Vinyl chloride	66.41	1.0	50.00		133	55.9	136	71.83	7.84	20	
Xylenes, Total	147.2	1.0	150.0		98.1	76.1	139	152.0	3.25	20	
Surr: 4-Bromofluorobenzene	48.07	0	50.00		96.1	70	130	48.91	0	0	
Surr: Dibromofluoromethane	53.00	0	50.00		106	70	130	54.35	0	0	
Surr: Toluene-d8	52.01	0	50.00		104	70	130	52.39	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241598

Sample ID: **MB-241598** Client ID:
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**
Units: **ug/L** BatchID: **241598**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341466** Seq No: **7477379**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	49.95	0	50.00		99.9	84.6	119				
Surr: Dibromofluoromethane	50.73	0	50.00		101	80	119				
Surr: Toluene-d8	49.54	0	50.00		99.1	85	115				

Sample ID: **LCS-241598** Client ID:
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**
Units: **ug/L** BatchID: **241598**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341466** Seq No: **7477378**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	9.890	5.0	10.00		98.9	68.1	133				
Surr: 4-Bromofluorobenzene	49.94	0	50.00		99.9	84.6	119				
Surr: Dibromofluoromethane	50.90	0	50.00		102	80	119				
Surr: Toluene-d8	50.10	0	50.00		100	85	115				

Sample ID: **1704H03-002AMS** Client ID:
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**
Units: **ug/L** BatchID: **241598**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341466** Seq No: **7478315**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	20140	2500	5000	13820	126	65.9	135				
Surr: 4-Bromofluorobenzene	24940	0	25000		99.8	84.6	119				
Surr: Dibromofluoromethane	25390	0	25000		102	80	119				
Surr: Toluene-d8	24840	0	25000		99.3	85	115				

Sample ID: **1704H03-002AMSD** Client ID:
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**
Units: **ug/L** BatchID: **241598**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341466** Seq No: **7478316**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	21830	2500	5000	13820	160	65.9	135	20140	8.03	31.5	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241598

Sample ID: **1704H03-002AMSD** Client ID:
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM**
Units: **ug/L** BatchID: **241598**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341466** Seq No: **7478316**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	24950	0	25000		99.8	84.6	119	24940	0	0	
Surr: Dibromofluoromethane	25410	0	25000		102	80	119	25390	0	0	
Surr: Toluene-d8	24920	0	25000		99.7	85	115	24840	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: 241692

Sample ID: **MB-241692** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341647**
SampleType: **MBLK** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241692** Analysis Date: **04/26/2017** Seq No: **7481813**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	BRL	100									
Manganese	0.4350	5.00									J

Sample ID: **LCS-241692** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341647**
SampleType: **LCS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241692** Analysis Date: **04/26/2017** Seq No: **7481814**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	984.7	100	1000		98.5	80	120				
Manganese	98.13	5.00	100.0	0.4350	97.7	80	120				

Sample ID: **1704F88-001GMS** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341647**
SampleType: **MS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241692** Analysis Date: **04/26/2017** Seq No: **7481817**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	1308	100	1000	386.0	92.2	75	125				
Manganese	101.1	5.00	100.0	5.331	95.8	75	125				

Sample ID: **1704F88-001GMSD** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341647**
SampleType: **MSD** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241692** Analysis Date: **04/26/2017** Seq No: **7481818**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	1323	100	1000	386.0	93.7	75	125	1308	1.14	20	
Manganese	100.7	5.00	100.0	5.331	95.4	75	125	101.1	0.396	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: R341087

Sample ID: **MB-R341087** Client ID: Units: **mg/L** Prep Date: Run No: **341087**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341087** Analysis Date: **04/19/2017** Seq No: **7467770**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R341087** Client ID: Units: **mg/L** Prep Date: Run No: **341087**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341087** Analysis Date: **04/19/2017** Seq No: **7467771**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09850	0.0100	0.1000		98.5	90	110				

Sample ID: **1704F88-001EMS** Client ID: Units: **mg/L** Prep Date: Run No: **341087**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341087** Analysis Date: **04/19/2017** Seq No: **7467777**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1170	0.0100	0.1000	0.01460	102	90	110				

Sample ID: **1704F88-002EMS** Client ID: Units: **mg/L** Prep Date: Run No: **341087**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341087** Analysis Date: **04/19/2017** Seq No: **7467783**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1810	0.0100	0.1000	0.08530	95.7	90	110				

Sample ID: **1704F88-001EMSD** Client ID: Units: **mg/L** Prep Date: Run No: **341087**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341087** Analysis Date: **04/19/2017** Seq No: **7467779**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1150	0.0100	0.1000	0.01460	100	90	110	0.1170	1.72	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: R341333

Sample ID: **MB-R341333** Client ID: Units: **mg/L** Prep Date: Run No: **341333**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476852**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R341333** Client ID: Units: **mg/L** Prep Date: Run No: **341333**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476851**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	5.028	0.25	5.000		101	90	110				
Sulfate	23.48	1.0	25.00		93.9	90	110				

Sample ID: **1704F88-001EMS** Client ID: Units: **mg/L** Prep Date: Run No: **341333**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476854**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	6.841	0.25	5.000	1.592	105	90	110				
Sulfate	39.20	1.0	25.00	14.09	100	90	110				

Sample ID: **1704F88-002EMS** Client ID: Units: **mg/L** Prep Date: Run No: **341333**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476857**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	6.293	0.25	5.000	1.162	103	90	110				
Sulfate	25.84	1.0	25.00	2.077	95.1	90	110				

Sample ID: **1704F88-001EMSD** Client ID: Units: **mg/L** Prep Date: Run No: **341333**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476855**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	6.858	0.25	5.000	1.592	105	90	110	6.841	0.244	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: **R341333**

Sample ID: **1704F88-001EMSD** Client ID: Units: **mg/L** Prep Date: Run No: **341333**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R341333** Analysis Date: **04/19/2017** Seq No: **7476855**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfate	39.34	1.0	25.00	14.09	101	90	110	39.20	0.356	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Apr-17

Client: GHD Services, Inc.
Project Name: Aquatech
Workorder: 1704G37

ANALYTICAL QC SUMMARY REPORT

BatchID: R341482

Sample ID: **MB-R341482** Client ID: Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477632**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R341482** Client ID: Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477633**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.010	0.020	1.000		101	90	110				

Sample ID: **1704F02-001AMS** Client ID: Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477635**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.080	0.020	1.000	0.06060	102	90	110				

Sample ID: **1704F88-001FMS** Client ID: Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477645**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.020	0.020	1.000		102	90	110				

Sample ID: **1704F02-001AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **341482**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341482** Analysis Date: **04/25/2017** Seq No: **7477636**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.100	0.020	1.000	0.06060	104	90	110	1.080	1.83	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 28, 2017

Terefe Mazengia
GHD Services, Inc.
3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

TEL: (770) 441-0027
FAX: (770) 441-2050

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1704H87

Analytical Environmental Services, Inc. received 13 samples on April 20, 2017 4:45 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3080 Presidential Drive; Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: M04H87

Date: 4/20/17 Page 1 of 1

COMPANY: GHD

ADDRESS: 3075 Beckinridge Blvd. Duluth, GA 30096

PHONE: 770-441-0027

FAX: 770-441-2050

SAMPLED BY: David Bryfowski + Steve Grace

SIGNATURE: [signature]

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL VOCs + MTBE	EDB	1,4 Dioxane	SSP Metals	Fe, Manganese	Dis Gases	Alkalinity	Chloride	Nitrate	Sulfide	TOC	Ammonia	Orthophosphate	REMARKS	No # of Containers
	PRESERVATION (See codes)																				
1	GW-013926-041917-SAG-006	4/19/17	14:30	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	3 coolers	13
2	GW ↓ 007	4/19/17	15:50	✓		↓	X	X	X	X	X	X	X	X	X	X	X	X	X		13
3	GW-013926-042015AG-008	4/20/17	9:50	✓			X	X	X	X	X	X	X	X	X	X	X	X	X	MS/MSD	39
4	GW ↓ 009	4/20/17	10:00	✓			X	X	X	X	X	X	X	X	X	X	X	X	X		13
5	GW-013926-0419-DJB-106	4/19/17	13:00	✓			X	X	X	X	X	X	X	X	X	X	X	X	X	See 550W #	13
6	GW ↓ 107	4/19/17	14:15	✓			X	X	X	X	X	X	X	X	X	X	X	X	X	013926-25-002	13
7	GW ↓ 108	4/19/17	15:45	✓			X	X	X	X	X	X	X	X	X	X	X	X	X		13
8	GW-013926-042017-DJB-109	4/20/17	9:35	✓			X	X	X	X	X	X	X	X	X	X	X	X	X		13
9	↓ 110	4/20/17	10:45	✓		↓	X	X	X	X	X	X	X	X	X	X	X	X	X		13
10	GW ↓ 11	4/20/17	12:00	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		13
11	Trip Blanks						X														6
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	4/20/17 16:45	1: [signature]	4/20/17 1645
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Aquatech
PROJECT #: 013926
SITE ADDRESS: Greer, SC
SEND REPORT TO: see 550W
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers: 162

Turnaround Time Request
- (X) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1704H87

Case Narrative

Sample Receiving Nonconformance:

For Work Order 1704H87, "Sulfide" analysis was requested. The laboratory proceeded with Sulfate analysis per the SSOW for project .

Sample information on the Chain of Custody did not match that on the sample bottle labels for samples -002A, -005C, -001I, and -010.

One of the containers for sample -002A does not have a sample ID or collection time/date on its label. The container was correctly matched because it arrived in the same sample set bag as the others for -002.

One of the containers for sample -005C has "GW-108" written as the sample ID. The sample was correctly matched because the label had the correct collection date/time and it arrived in the same sample set bag as the other samples for "GW-106" and all containers in sample set bag "GW-108" were accounted for

Vial 2 of 2 for GW-006 Dissolved gasses arrived empty. The laboratory proceeded with analysis using the remaining vial

Sample -010 has a sample ID of "GW-013926-042017-DJB-11" on the COC, however on the sample containers were labeled "GW-111." All samples were logged in as "GW-013926-042017-DJB-111" following client naming convention and sequence.

All samples were logged in using client naming convention. Samples 106, 107, 108, 109, 110 and 111 were missing the year and dashes.

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-SAG-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 2:30:00 PM
Lab ID:	1704H87-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,1,2,2-Tetrachloroethane	6.0		0.34	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,1-Dichloroethane	0.69	J	0.43	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/24/2017 22:06	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/24/2017 22:06	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/24/2017 22:06	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/24/2017 22:06	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/24/2017 22:06	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/24/2017 22:06	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/24/2017 22:06	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/24/2017 22:06	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/24/2017 22:06	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/24/2017 22:06	NP
cis-1,2-Dichloroethene	39		0.28	1.0	ug/L	241558	1	04/24/2017 22:06	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/24/2017 22:06	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/24/2017 22:06	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/24/2017 22:06	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/24/2017 22:06	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-SAG-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 2:30:00 PM
Lab ID:	1704H87-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/24/2017 22:06	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/24/2017 22:06	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Tetrachloroethene	19		0.46	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/24/2017 22:06	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/24/2017 22:06	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/24/2017 22:06	NP
Trichloroethene	72		0.30	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/24/2017 22:06	NP
Surr: 4-Bromofluorobenzene	77		0	70-130	%REC	241558	1	04/24/2017 22:06	NP
Surr: Dibromofluoromethane	110		0	70-130	%REC	241558	1	04/24/2017 22:06	NP
Surr: Toluene-d8	101		0	70-130	%REC	241558	1	04/24/2017 22:06	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.20		0.337	1.00	mg/L	R341608	1	04/26/2017 17:38	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.248	J	0.156	5.00	ug/L	241437	1	04/26/2017 04:05	JS
Barium	112		0.185	10.0	ug/L	241437	1	04/26/2017 04:05	JS
Cadmium	0.809		0.148	0.700	ug/L	241437	1	04/26/2017 04:05	JS
Chromium	1.15	J	0.193	5.00	ug/L	241437	1	04/26/2017 04:05	JS
Copper	0.727	J	0.126	2.00	ug/L	241437	1	04/26/2017 04:05	JS
Lead	BRL		0.215	1.00	ug/L	241437	1	04/26/2017 04:05	JS
Selenium	BRL		0.264	5.00	ug/L	241437	1	04/26/2017 04:05	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0197		0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:05	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341483	1	04/25/2017 15:04	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241409	1	04/27/2017 02:37	AW
Surr: 4-Bromofluorobenzene	105		0	64.9-131	%REC	241409	1	04/27/2017 02:37	AW
ION SCAN SW9056A									
Chloride	11		0.17	1.0	mg/L	R341539	1	04/21/2017 10:38	JW
Nitrate	0.29		0.055	0.25	mg/L	R341539	1	04/21/2017 10:38	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-SAG-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 2:30:00 PM
Lab ID:	1704H87-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	4.4		0.12	1.0	mg/L	R341539	1	04/21/2017 10:38	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241551	1	04/25/2017 09:22	EI
Ethylene	BRL		3.5	7.0	ug/L	241551	1	04/25/2017 09:22	EI
Methane	BRL		1.2	4.0	ug/L	241551	1	04/25/2017 09:22	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	8.24	J	6.47	100	ug/L	241688	1	04/27/2017 10:00	JS
Manganese	2220		0.344	5.00	ug/L	241688	1	04/27/2017 10:00	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	20.0		1.68	3.00	mg/L	R341616	1	04/26/2017 11:15	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	20		0.47	2.0	ug/L	241698	1	04/26/2017 15:55	NP
Surr: 4-Bromofluorobenzene	99.5		0	84.6-119	%REC	241698	1	04/26/2017 15:55	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241698	1	04/26/2017 15:55	NP
Surr: Toluene-d8	100		0	85-115	%REC	241698	1	04/26/2017 15:55	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-SAG-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 3:50:00 PM
Lab ID:	1704H87-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,1,2,2-Tetrachloroethane	2.1		0.34	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/24/2017 22:31	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/24/2017 22:31	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/24/2017 22:31	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/24/2017 22:31	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/24/2017 22:31	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/24/2017 22:31	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/24/2017 22:31	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/24/2017 22:31	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/24/2017 22:31	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/24/2017 22:31	NP
cis-1,2-Dichloroethene	6.8		0.28	1.0	ug/L	241558	1	04/24/2017 22:31	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/24/2017 22:31	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/24/2017 22:31	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/24/2017 22:31	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/24/2017 22:31	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-SAG-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 3:50:00 PM
Lab ID:	1704H87-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/24/2017 22:31	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/24/2017 22:31	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Tetrachloroethene	7.7		0.46	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/24/2017 22:31	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/24/2017 22:31	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/24/2017 22:31	NP
Trichloroethene	19		0.30	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/24/2017 22:31	NP
Surr: 4-Bromofluorobenzene	75.5		0	70-130	%REC	241558	1	04/24/2017 22:31	NP
Surr: Dibromofluoromethane	109		0	70-130	%REC	241558	1	04/24/2017 22:31	NP
Surr: Toluene-d8	101		0	70-130	%REC	241558	1	04/24/2017 22:31	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.89		0.337	1.00	mg/L	R341608	1	04/26/2017 18:04	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.287	J	0.156	5.00	ug/L	241437	1	04/26/2017 04:11	JS
Barium	59.6		0.185	10.0	ug/L	241437	1	04/26/2017 04:11	JS
Cadmium	0.372	J	0.148	0.700	ug/L	241437	1	04/26/2017 04:11	JS
Chromium	1.19	J	0.193	5.00	ug/L	241437	1	04/26/2017 04:11	JS
Copper	0.465	J	0.126	2.00	ug/L	241437	1	04/26/2017 04:11	JS
Lead	BRL		0.215	1.00	ug/L	241437	1	04/26/2017 04:11	JS
Selenium	BRL		0.264	5.00	ug/L	241437	1	04/26/2017 04:11	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00637	J	0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:06	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341483	1	04/25/2017 15:05	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241409	1	04/27/2017 03:05	AW
Surr: 4-Bromofluorobenzene	103		0	64.9-131	%REC	241409	1	04/27/2017 03:05	AW
ION SCAN SW9056A									
Chloride	6.7		0.17	1.0	mg/L	R341539	1	04/21/2017 11:08	JW
Nitrate	0.33		0.055	0.25	mg/L	R341539	1	04/21/2017 11:08	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-SAG-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 3:50:00 PM
Lab ID:	1704H87-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	0.62	J	0.12	1.0	mg/L	R341539	1	04/21/2017 11:08	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241551	1	04/25/2017 09:29	EI
Ethylene	BRL		3.5	7.0	ug/L	241551	1	04/25/2017 09:29	EI
Methane	14		1.2	4.0	ug/L	241551	1	04/25/2017 09:29	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	67.0	J	6.47	100	ug/L	241688	1	04/27/2017 10:06	JS
Manganese	471		0.344	5.00	ug/L	241688	1	04/27/2017 10:06	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	12.0		1.68	3.00	mg/L	R341616	1	04/26/2017 11:15	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	4.2		0.47	2.0	ug/L	241698	1	04/26/2017 16:50	NP
Surr: 4-Bromofluorobenzene	101		0	84.6-119	%REC	241698	1	04/26/2017 16:50	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241698	1	04/26/2017 16:50	NP
Surr: Toluene-d8	99.5		0	85-115	%REC	241698	1	04/26/2017 16:50	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-SAG-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 9:50:00 AM
Lab ID:	1704H87-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,1,2,2-Tetrachloroethane	7.8		0.34	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,1-Dichloroethane	1.0		0.43	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/24/2017 22:56	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/24/2017 22:56	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/24/2017 22:56	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/24/2017 22:56	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/24/2017 22:56	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/24/2017 22:56	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/24/2017 22:56	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/24/2017 22:56	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/24/2017 22:56	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/24/2017 22:56	NP
cis-1,2-Dichloroethene	27		0.28	1.0	ug/L	241558	1	04/24/2017 22:56	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/24/2017 22:56	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/24/2017 22:56	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/24/2017 22:56	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/24/2017 22:56	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-SAG-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 9:50:00 AM
Lab ID:	1704H87-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/24/2017 22:56	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/24/2017 22:56	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Tetrachloroethene	8.6		0.46	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/24/2017 22:56	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/24/2017 22:56	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/24/2017 22:56	NP
Trichloroethene	79		0.30	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/24/2017 22:56	NP
Surr: 4-Bromofluorobenzene	76.7		0	70-130	%REC	241558	1	04/24/2017 22:56	NP
Surr: Dibromofluoromethane	111		0	70-130	%REC	241558	1	04/24/2017 22:56	NP
Surr: Toluene-d8	102		0	70-130	%REC	241558	1	04/24/2017 22:56	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	2.76		0.337	1.00	mg/L	R341608	1	04/26/2017 18:30	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	BRL		0.156	5.00	ug/L	241437	1	04/26/2017 02:38	JS
Barium	196		0.185	10.0	ug/L	241437	1	04/26/2017 02:38	JS
Cadmium	0.586	J	0.148	0.700	ug/L	241437	1	04/26/2017 02:38	JS
Chromium	1.31	J	0.193	5.00	ug/L	241437	1	04/26/2017 02:38	JS
Copper	3.79		0.126	2.00	ug/L	241437	1	04/26/2017 02:38	JS
Lead	0.373	J	0.215	1.00	ug/L	241437	1	04/26/2017 02:38	JS
Selenium	0.367	J	0.264	5.00	ug/L	241437	1	04/26/2017 02:38	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00524	J	0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:07	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341483	1	04/25/2017 15:06	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241484	1	04/26/2017 01:53	AW
Surr: 4-Bromofluorobenzene	113		0	64.9-131	%REC	241484	1	04/26/2017 01:53	AW
ION SCAN SW9056A									
Chloride	29		0.84	5.0	mg/L	R341539	5	04/21/2017 14:09	JW
Nitrate	0.27		0.055	0.25	mg/L	R341539	1	04/21/2017 11:38	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-SAG-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 9:50:00 AM
Lab ID:	1704H87-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	0.55	J	0.12	1.0	mg/L	R341539	1	04/21/2017 11:38	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241551	1	04/25/2017 09:43	EI
Ethylene	BRL		3.5	7.0	ug/L	241551	1	04/25/2017 09:43	EI
Methane	20		1.2	4.0	ug/L	241551	1	04/25/2017 09:43	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	92.1	J	6.47	100	ug/L	241688	1	04/27/2017 09:29	JS
Manganese	288		0.344	5.00	ug/L	241688	1	04/27/2017 09:29	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	6.00		1.68	3.00	mg/L	R341456	1	04/24/2017 10:45	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	12		0.47	2.0	ug/L	241698	1	04/26/2017 10:40	NP
Surr: 4-Bromofluorobenzene	99.7		0	84.6-119	%REC	241698	1	04/26/2017 10:40	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241698	1	04/26/2017 10:40	NP
Surr: Toluene-d8	98.6		0	85-115	%REC	241698	1	04/26/2017 10:40	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-SAG-009
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 10:00:00 AM
Lab ID:	1704H87-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,1,2,2-Tetrachloroethane	7.5		0.34	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,1-Dichloroethane	0.95	J	0.43	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/25/2017 00:10	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/25/2017 00:10	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/25/2017 00:10	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 00:10	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 00:10	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 00:10	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 00:10	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 00:10	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 00:10	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 00:10	NP
cis-1,2-Dichloroethene	27		0.28	1.0	ug/L	241558	1	04/25/2017 00:10	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 00:10	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/25/2017 00:10	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 00:10	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 00:10	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-SAG-009
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 10:00:00 AM
Lab ID:	1704H87-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 00:10	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/25/2017 00:10	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Tetrachloroethene	8.8		0.46	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 00:10	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/25/2017 00:10	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 00:10	NP
Trichloroethene	80		0.30	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 00:10	NP
Surr: 4-Bromofluorobenzene	81.2		0	70-130	%REC	241558	1	04/25/2017 00:10	NP
Surr: Dibromofluoromethane	108		0	70-130	%REC	241558	1	04/25/2017 00:10	NP
Surr: Toluene-d8	100		0	70-130	%REC	241558	1	04/25/2017 00:10	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	2.68		0.337	1.00	mg/L	R341608	1	04/26/2017 19:49	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.169	J	0.156	5.00	ug/L	241437	1	04/26/2017 04:17	JS
Barium	208		0.185	10.0	ug/L	241437	1	04/26/2017 04:17	JS
Cadmium	0.674	J	0.148	0.700	ug/L	241437	1	04/26/2017 04:17	JS
Chromium	1.50	J	0.193	5.00	ug/L	241437	1	04/26/2017 04:17	JS
Copper	5.08		0.126	2.00	ug/L	241437	1	04/26/2017 04:17	JS
Lead	0.415	J	0.215	1.00	ug/L	241437	1	04/26/2017 04:17	JS
Selenium	0.306	J	0.264	5.00	ug/L	241437	1	04/26/2017 04:17	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00411	J	0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:10	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.012	J	0.010	0.020	mg/L	R341483	1	04/25/2017 15:10	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241409	1	04/27/2017 03:34	AW
Surr: 4-Bromofluorobenzene	105		0	64.9-131	%REC	241409	1	04/27/2017 03:34	AW
ION SCAN SW9056A									
Chloride	28		0.84	5.0	mg/L	R341539	5	04/21/2017 14:54	JW
Nitrate	0.27		0.055	0.25	mg/L	R341539	1	04/21/2017 11:53	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-SAG-009
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 10:00:00 AM
Lab ID:	1704H87-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	0.90	J	0.12	1.0	mg/L	R341539	1	04/21/2017 11:53	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241551	1	04/25/2017 09:50	EI
Ethylene	BRL		3.5	7.0	ug/L	241551	1	04/25/2017 09:50	EI
Methane	39		1.2	4.0	ug/L	241551	1	04/25/2017 09:50	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	211		6.47	100	ug/L	241688	1	04/27/2017 10:13	JS
Manganese	286		0.344	5.00	ug/L	241688	1	04/27/2017 10:13	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	6.00		1.68	3.00	mg/L	R341616	1	04/26/2017 11:15	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	16		0.47	2.0	ug/L	241698	1	04/26/2017 17:17	NP
Surr: 4-Bromofluorobenzene	99.3		0	84.6-119	%REC	241698	1	04/26/2017 17:17	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241698	1	04/26/2017 17:17	NP
Surr: Toluene-d8	99.1		0	85-115	%REC	241698	1	04/26/2017 17:17	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-DJB-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 1:00:00 PM
Lab ID:	1704H87-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	2.1		0.30	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,1,2,2-Tetrachloroethane	14		0.34	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,1,2-Trichloroethane	1.4		0.43	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,1-Dichloroethane	24		0.43	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,1-Dichloroethene	35		0.40	2.0	ug/L	241558	1	04/25/2017 11:08	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,2-Dichloroethane	2.0		0.37	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/25/2017 11:08	NP
1,4-Dioxane	270		26	150	ug/L	241558	1	04/25/2017 11:08	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 11:08	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 11:08	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 11:08	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 11:08	NP
Benzene	0.64	J	0.37	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 11:08	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 11:08	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Chloroform	15		0.20	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 11:08	NP
cis-1,2-Dichloroethene	210		2.8	10	ug/L	241558	10	04/25/2017 11:33	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 11:08	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Freon-113	13		0.32	5.0	ug/L	241558	1	04/25/2017 11:08	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 11:08	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 11:08	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-DJB-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 1:00:00 PM
Lab ID:	1704H87-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 11:08	NP
Methylene chloride	1.8	J	1.2	5.0	ug/L	241558	1	04/25/2017 11:08	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Tetrachloroethene	80		0.46	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 11:08	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/25/2017 11:08	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 11:08	NP
Trichloroethene	270		3.0	10	ug/L	241558	10	04/25/2017 11:33	NP
Trichlorofluoromethane	4.6		0.18	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Vinyl chloride	2.1		0.30	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 11:08	NP
Surr: 4-Bromofluorobenzene	77.3		0	70-130	%REC	241558	10	04/25/2017 11:33	NP
Surr: 4-Bromofluorobenzene	76.2		0	70-130	%REC	241558	1	04/25/2017 11:08	NP
Surr: Dibromofluoromethane	111		0	70-130	%REC	241558	10	04/25/2017 11:33	NP
Surr: Dibromofluoromethane	113		0	70-130	%REC	241558	1	04/25/2017 11:08	NP
Surr: Toluene-d8	99.8		0	70-130	%REC	241558	1	04/25/2017 11:08	NP
Surr: Toluene-d8	103		0	70-130	%REC	241558	10	04/25/2017 11:33	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.86		0.337	1.00	mg/L	R341608	1	04/26/2017 20:15	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.350	J	0.156	5.00	ug/L	241437	1	04/26/2017 04:23	JS
Barium	268		0.185	10.0	ug/L	241437	1	04/26/2017 04:23	JS
Cadmium	BRL		0.148	0.700	ug/L	241437	1	04/26/2017 04:23	JS
Chromium	3.51	J	0.193	5.00	ug/L	241437	1	04/26/2017 04:23	JS
Copper	0.728	J	0.126	2.00	ug/L	241437	1	04/26/2017 04:23	JS
Lead	0.467	J	0.215	1.00	ug/L	241437	1	04/26/2017 04:23	JS
Selenium	0.282	J	0.264	5.00	ug/L	241437	1	04/26/2017 04:23	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0457		0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:11	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341483	1	04/25/2017 15:11	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241409	1	04/27/2017 04:02	AW
Surr: 4-Bromofluorobenzene	103		0	54.9-131	%REC	241409	1	04/27/2017 04:02	AW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-DJB-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 1:00:00 PM
Lab ID:	1704H87-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	13		0.17	1.0	mg/L	R341539	1	04/21/2017 10:07	JW
Nitrate	1.1		0.055	0.25	mg/L	R341539	1	04/21/2017 10:07	JW
Sulfate	0.43	J	0.12	1.0	mg/L	R341539	1	04/21/2017 10:07	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241551	1	04/25/2017 09:59	EI
Ethylene	BRL		3.5	7.0	ug/L	241551	1	04/25/2017 09:59	EI
Methane	6.7		1.2	4.0	ug/L	241551	1	04/25/2017 09:59	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	1420		6.47	100	ug/L	241688	1	04/27/2017 10:37	JS
Manganese	53.2		0.344	5.00	ug/L	241688	1	04/27/2017 10:37	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	44.0		1.68	3.00	mg/L	R341616	1	04/26/2017 11:15	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	330		4.7	20	ug/L	241698	10	04/26/2017 14:34	NP
Surr: 4-Bromofluorobenzene	101		0	84.6-119	%REC	241698	10	04/26/2017 14:34	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241698	10	04/26/2017 14:34	NP
Surr: Toluene-d8	99.3		0	85-115	%REC	241698	10	04/26/2017 14:34	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-DJB-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 2:15:00 PM
Lab ID:	1704H87-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,1-Dichloroethane	1.2		0.43	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/25/2017 11:59	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/25/2017 11:59	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/25/2017 11:59	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 11:59	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 11:59	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 11:59	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 11:59	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 11:59	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 11:59	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 11:59	NP
cis-1,2-Dichloroethene	1.4		0.28	1.0	ug/L	241558	1	04/25/2017 11:59	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 11:59	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/25/2017 11:59	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 11:59	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 11:59	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-DJB-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 2:15:00 PM
Lab ID:	1704H87-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 11:59	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/25/2017 11:59	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 11:59	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/25/2017 11:59	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 11:59	NP
Trichloroethene	1.4		0.30	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Vinyl chloride	1.5		0.30	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 11:59	NP
Surr: 4-Bromofluorobenzene	77.5		0	70-130	%REC	241558	1	04/25/2017 11:59	NP
Surr: Dibromofluoromethane	112		0	70-130	%REC	241558	1	04/25/2017 11:59	NP
Surr: Toluene-d8	102		0	70-130	%REC	241558	1	04/25/2017 11:59	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	3.84		0.337	1.00	mg/L	R341608	1	04/26/2017 20:41	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.802	J	0.156	5.00	ug/L	241437	1	04/26/2017 04:30	JS
Barium	81.1		0.185	10.0	ug/L	241437	1	04/26/2017 04:30	JS
Cadmium	0.213	J	0.148	0.700	ug/L	241437	1	04/26/2017 04:30	JS
Chromium	1.27	J	0.193	5.00	ug/L	241437	1	04/26/2017 04:30	JS
Copper	0.930	J	0.126	2.00	ug/L	241437	1	04/26/2017 04:30	JS
Lead	0.317	J	0.215	1.00	ug/L	241437	1	04/26/2017 04:30	JS
Selenium	BRL		0.264	5.00	ug/L	241437	1	04/26/2017 04:30	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.187		0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:12	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	3.79		0.101	0.200	mg/L	R341483	10	04/25/2017 15:20	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241409	1	04/27/2017 04:31	AW
Surr: 4-Bromofluorobenzene	107		0	64.9-131	%REC	241409	1	04/27/2017 04:31	AW
ION SCAN SW9056A									
Chloride	5.0		0.17	1.0	mg/L	R341539	1	04/21/2017 10:23	JW
Nitrate	BRL		0.055	0.25	mg/L	R341539	1	04/21/2017 10:23	JW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-DJB-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 2:15:00 PM
Lab ID:	1704H87-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	5.8		0.12	1.0	mg/L	R341539	1	04/21/2017 10:23	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241551	1	04/25/2017 10:05	EI
Ethylene	5.6	J	3.5	7.0	ug/L	241551	1	04/25/2017 10:05	EI
Methane	2600		59	200	ug/L	241551	50	04/25/2017 11:06	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	305		6.47	100	ug/L	241688	1	04/27/2017 10:44	JS
Manganese	186		0.344	5.00	ug/L	241688	1	04/27/2017 10:44	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	188		1.68	3.00	mg/L	R341616	1	04/26/2017 11:15	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	43		4.7	20	ug/L	241698	10	04/26/2017 15:01	NP
Surr: 4-Bromofluorobenzene	99.7		0	84.6-119	%REC	241698	10	04/26/2017 15:01	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241698	10	04/26/2017 15:01	NP
Surr: Toluene-d8	99		0	85-115	%REC	241698	10	04/26/2017 15:01	NP

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-DJB-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 3:45:00 PM
Lab ID:	1704H87-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	54		0.30	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,1,2,2-Tetrachloroethane	29		0.34	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,1,2-Trichloroethane	3.5		0.43	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,1-Dichloroethane	14		0.43	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,1-Dichloroethene	6.8		0.40	2.0	ug/L	241558	1	04/25/2017 09:28	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,2-Dichlorobenzene	2.4		0.45	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,2-Dichloroethane	2.1		0.37	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,3-Dichlorobenzene	1.3		0.31	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,4-Dichlorobenzene	2.0		0.33	1.0	ug/L	241558	1	04/25/2017 09:28	NP
1,4-Dioxane	110	J	26	150	ug/L	241558	1	04/25/2017 09:28	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 09:28	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 09:28	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 09:28	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 09:28	NP
Benzene	2.2		0.37	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 09:28	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 09:28	NP
Chlorobenzene	6.4		0.42	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Chloroethane	1.8		0.31	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Chloroform	5.9		0.20	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 09:28	NP
cis-1,2-Dichloroethene	250		2.8	10	ug/L	241558	10	04/25/2017 12:49	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 09:28	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/25/2017 09:28	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 09:28	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 09:28	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-DJB-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 3:45:00 PM
Lab ID:	1704H87-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 09:28	NP
Methylene chloride	1.3	J	1.2	5.0	ug/L	241558	1	04/25/2017 09:28	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Tetrachloroethene	160		0.46	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 09:28	NP
trans-1,2-Dichloroethene	3.2		0.30	2.0	ug/L	241558	1	04/25/2017 09:28	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 09:28	NP
Trichloroethene	36		0.30	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Vinyl chloride	30		0.30	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 09:28	NP
Surr: 4-Bromofluorobenzene	75.1		0	70-130	%REC	241558	10	04/25/2017 12:49	NP
Surr: 4-Bromofluorobenzene	76		0	70-130	%REC	241558	1	04/25/2017 09:28	NP
Surr: Dibromofluoromethane	112		0	70-130	%REC	241558	1	04/25/2017 09:28	NP
Surr: Dibromofluoromethane	112		0	70-130	%REC	241558	10	04/25/2017 12:49	NP
Surr: Toluene-d8	99.8		0	70-130	%REC	241558	1	04/25/2017 09:28	NP
Surr: Toluene-d8	99.3		0	70-130	%REC	241558	10	04/25/2017 12:49	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	10.1		0.337	1.00	mg/L	R341608	1	04/26/2017 21:07	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	1.31	J	0.156	5.00	ug/L	241437	1	04/26/2017 04:36	JS
Barium	268		0.185	10.0	ug/L	241437	1	04/26/2017 04:36	JS
Cadmium	0.246	J	0.148	0.700	ug/L	241437	1	04/26/2017 04:36	JS
Chromium	1.41	J	0.193	5.00	ug/L	241437	1	04/26/2017 04:36	JS
Copper	0.256	J	0.126	2.00	ug/L	241437	1	04/26/2017 04:36	JS
Lead	BRL		0.215	1.00	ug/L	241437	1	04/26/2017 04:36	JS
Selenium	0.285	J	0.264	5.00	ug/L	241437	1	04/26/2017 04:36	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	BRL		0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:14	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.065		0.010	0.020	mg/L	R341483	1	04/25/2017 15:16	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241409	1	04/27/2017 05:00	AW
Surr: 4-Bromofluorobenzene	111		0	64.9-131	%REC	241409	1	04/27/2017 05:00	AW

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-041917-DJB-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/19/2017 3:45:00 PM
Lab ID:	1704H87-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	34		0.84	5.0	mg/L	R341539	5	04/21/2017 11:23	JW
Nitrate	BRL		0.055	0.25	mg/L	R341539	1	04/21/2017 10:53	JW
Sulfate	15		0.12	1.0	mg/L	R341539	1	04/21/2017 10:53	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	4.3	J	1.9	9.0	ug/L	241551	1	04/25/2017 10:24	EI
Ethylene	3.6	J	3.5	7.0	ug/L	241551	1	04/25/2017 10:24	EI
Methane	210		1.2	4.0	ug/L	241551	1	04/25/2017 10:24	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	6000		6.47	100	ug/L	241688	1	04/27/2017 10:50	JS
Manganese	10800		0.344	5.00	ug/L	241688	1	04/27/2017 10:50	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	30.0		1.68	3.00	mg/L	R341616	1	04/26/2017 11:15	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	180		4.7	20	ug/L	241698	10	04/26/2017 15:28	NP
Surr: 4-Bromofluorobenzene	102		0	84.6-119	%REC	241698	10	04/26/2017 15:28	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241698	10	04/26/2017 15:28	NP
Surr: Toluene-d8	101		0	85-115	%REC	241698	10	04/26/2017 15:28	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-DJB-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 9:35:00 AM
Lab ID:	1704H87-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,1-Dichloroethane	1.3		0.43	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/25/2017 09:53	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/25/2017 09:53	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/25/2017 09:53	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 09:53	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 09:53	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 09:53	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 09:53	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 09:53	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 09:53	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 09:53	NP
cis-1,2-Dichloroethene	12		0.28	1.0	ug/L	241558	1	04/25/2017 09:53	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 09:53	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/25/2017 09:53	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 09:53	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 09:53	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-DJB-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 9:35:00 AM
Lab ID:	1704H87-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 09:53	NP
Methylene chloride	2.1	J	1.2	5.0	ug/L	241558	1	04/25/2017 09:53	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Tetrachloroethene	7.0		0.46	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Toluene	0.58	J	0.39	1.0	ug/L	241558	1	04/25/2017 09:53	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/25/2017 09:53	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 09:53	NP
Trichloroethene	4.3		0.30	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 09:53	NP
Surr: 4-Bromofluorobenzene	74.8		0	70-130	%REC	241558	1	04/25/2017 09:53	NP
Surr: Dibromofluoromethane	109		0	70-130	%REC	241558	1	04/25/2017 09:53	NP
Surr: Toluene-d8	98		0	70-130	%REC	241558	1	04/25/2017 09:53	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R341608	1	04/26/2017 21:33	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	BRL		0.156	5.00	ug/L	241437	1	04/26/2017 04:42	JS
Barium	15.5		0.185	10.0	ug/L	241437	1	04/26/2017 04:42	JS
Cadmium	BRL		0.148	0.700	ug/L	241437	1	04/26/2017 04:42	JS
Chromium	0.933	J	0.193	5.00	ug/L	241437	1	04/26/2017 04:42	JS
Copper	0.721	J	0.126	2.00	ug/L	241437	1	04/26/2017 04:42	JS
Lead	2.11		0.215	1.00	ug/L	241437	1	04/26/2017 04:42	JS
Selenium	0.396	J	0.264	5.00	ug/L	241437	1	04/26/2017 04:42	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0172		0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:15	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R341483	1	04/25/2017 15:17	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241409	1	04/27/2017 05:29	AW
Surr: 4-Bromofluorobenzene	101		0	64.9-131	%REC	241409	1	04/27/2017 05:29	AW
ION SCAN SW9056A									
Chloride	1.6		0.17	1.0	mg/L	R341539	1	04/21/2017 12:08	JW
Nitrate	0.056	J	0.055	0.25	mg/L	R341539	1	04/21/2017 12:08	JW

Qualifiers:

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- BRL Not detected at MDL
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- N Analyte not NELAC certified
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- E Estimated value above quantitation range
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-DJB-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 9:35:00 AM
Lab ID:	1704H87-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	7.2		0.12	1.0	mg/L	R341539	1	04/21/2017 12:08	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241551	1	04/25/2017 10:30	EI
Ethylene	BRL		3.5	7.0	ug/L	241551	1	04/25/2017 10:30	EI
Methane	BRL		1.2	4.0	ug/L	241551	1	04/25/2017 10:30	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	14.6	J	6.47	100	ug/L	241688	1	04/27/2017 10:56	JS
Manganese	1.66	J	0.344	5.00	ug/L	241688	1	04/27/2017 19:53	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	35.0		1.68	3.00	mg/L	R341616	1	04/26/2017 11:15	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	2.0		0.47	2.0	ug/L	241698	1	04/27/2017 08:18	NP
Surr: 4-Bromofluorobenzene	98.9		0	84.6-119	%REC	241698	1	04/27/2017 08:18	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241698	1	04/27/2017 08:18	NP
Surr: Toluene-d8	99.7		0	85-115	%REC	241698	1	04/27/2017 08:18	NP

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Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-DJB-110
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 10:45:00 AM
Lab ID:	1704H87-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,1,2,2-Tetrachloroethane	1.1		0.34	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,1-Dichloroethane	4.3		0.43	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,1-Dichloroethene	2.9		0.40	2.0	ug/L	241558	1	04/25/2017 10:19	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/25/2017 10:19	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/25/2017 10:19	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 10:19	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 10:19	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 10:19	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 10:19	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 10:19	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 10:19	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 10:19	NP
cis-1,2-Dichloroethene	34		0.28	1.0	ug/L	241558	1	04/25/2017 10:19	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 10:19	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/25/2017 10:19	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 10:19	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 10:19	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
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- E Estimated value above quantitation range
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- J Estimated value detected below Reporting Limit
- > Greater than Result value
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- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-DJB-110
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 10:45:00 AM
Lab ID:	1704H87-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 10:19	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/25/2017 10:19	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Tetrachloroethene	11		0.46	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 10:19	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/25/2017 10:19	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 10:19	NP
Trichloroethene	25		0.30	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 10:19	NP
Surr: 4-Bromofluorobenzene	75.3		0	70-130	%REC	241558	1	04/25/2017 10:19	NP
Surr: Dibromofluoromethane	113		0	70-130	%REC	241558	1	04/25/2017 10:19	NP
Surr: Toluene-d8	100		0	70-130	%REC	241558	1	04/25/2017 10:19	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	2.53		0.337	1.00	mg/L	R341608	1	04/26/2017 23:19	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.199	J	0.156	5.00	ug/L	241437	1	04/26/2017 04:48	JS
Barium	138		0.185	10.0	ug/L	241437	1	04/26/2017 04:48	JS
Cadmium	BRL		0.148	0.700	ug/L	241437	1	04/26/2017 04:48	JS
Chromium	1.39	J	0.193	5.00	ug/L	241437	1	04/26/2017 04:48	JS
Copper	0.280	J	0.126	2.00	ug/L	241437	1	04/26/2017 04:48	JS
Lead	BRL		0.215	1.00	ug/L	241437	1	04/26/2017 04:48	JS
Selenium	BRL		0.264	5.00	ug/L	241437	1	04/26/2017 04:48	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0261		0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:16	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.020		0.010	0.020	mg/L	R341483	1	04/25/2017 15:18	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241409	1	04/27/2017 05:57	AW
Surr: 4-Bromofluorobenzene	106		0	64.9-131	%REC	241409	1	04/27/2017 05:57	AW
ION SCAN SW9056A									
Chloride	6.0		0.17	1.0	mg/L	R341539	1	04/21/2017 12:23	JW
Nitrate	3.8		0.055	0.25	mg/L	R341539	1	04/21/2017 12:23	JW

Qualifiers:

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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-DJB-110
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 10:45:00 AM
Lab ID:	1704H87-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	11		0.12	1.0	mg/L	R341539	1	04/21/2017 12:23	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241551	1	04/25/2017 10:40	EI
Ethylene	BRL		3.5	7.0	ug/L	241551	1	04/25/2017 10:40	EI
Methane	6.7		1.2	4.0	ug/L	241551	1	04/25/2017 10:40	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	9.87	J	6.47	100	ug/L	241688	1	04/27/2017 11:02	JS
Manganese	2120		0.344	5.00	ug/L	241688	1	04/27/2017 11:02	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	34.0		1.68	3.00	mg/L	R341616	1	04/26/2017 11:15	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	29		0.47	2.0	ug/L	241698	1	04/26/2017 17:44	NP
Surr: 4-Bromofluorobenzene	99.4		0	84.6-119	%REC	241698	1	04/26/2017 17:44	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241698	1	04/26/2017 17:44	NP
Surr: Toluene-d8	99.8		0	85-115	%REC	241698	1	04/26/2017 17:44	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- E Estimated value above quantitation range
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- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-DJB-111
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 12:00:00 PM
Lab ID:	1704H87-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/25/2017 10:43	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/25/2017 10:43	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/25/2017 10:43	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 10:43	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 10:43	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 10:43	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 10:43	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 10:43	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 10:43	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 10:43	NP
cis-1,2-Dichloroethene	1.2		0.28	1.0	ug/L	241558	1	04/25/2017 10:43	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 10:43	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/25/2017 10:43	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 10:43	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 10:43	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-DJB-111
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 12:00:00 PM
Lab ID:	1704H87-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 10:43	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/25/2017 10:43	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Toluene	0.55	J	0.39	1.0	ug/L	241558	1	04/25/2017 10:43	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/25/2017 10:43	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 10:43	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Vinyl chloride	1.5		0.30	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 10:43	NP
Surr: 4-Bromofluorobenzene	77.9		0	70-130	%REC	241558	1	04/25/2017 10:43	NP
Surr: Dibromofluoromethane	112		0	70-130	%REC	241558	1	04/25/2017 10:43	NP
Surr: Toluene-d8	104		0	70-130	%REC	241558	1	04/25/2017 10:43	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.10		0.337	1.00	mg/L	R341608	1	04/26/2017 23:45	JW
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	2.38	J	0.156	5.00	ug/L	241437	1	04/26/2017 05:13	JS
Barium	40.1		0.185	10.0	ug/L	241437	1	04/26/2017 05:13	JS
Cadmium	BRL		0.148	0.700	ug/L	241437	1	04/26/2017 05:13	JS
Chromium	1.37	J	0.193	5.00	ug/L	241437	1	04/26/2017 05:13	JS
Copper	0.314	J	0.126	2.00	ug/L	241437	1	04/26/2017 05:13	JS
Lead	0.900	J	0.215	1.00	ug/L	241437	1	04/26/2017 05:13	JS
Selenium	BRL		0.264	5.00	ug/L	241437	1	04/26/2017 05:13	JS
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0602		0.00410	0.0100	mg/L	R341256	1	04/21/2017 12:17	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	1.12		0.010	0.020	mg/L	R341483	1	04/25/2017 15:19	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	241409	1	04/27/2017 06:26	AW
Surr: 4-Bromofluorobenzene	106		0	64.9-131	%REC	241409	1	04/27/2017 06:26	AW
ION SCAN SW9056A									
Chloride	1.0		0.17	1.0	mg/L	R341539	1	04/21/2017 13:24	JW
Nitrate	0.056	J	0.055	0.25	mg/L	R341539	1	04/21/2017 13:24	JW

Qualifiers:

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- E Estimated value above quantitation range
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- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-042017-DJB-111
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017 12:00:00 PM
Lab ID:	1704H87-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Sulfate	7.5		0.12	1.0	mg/L	R341539	1	04/21/2017 13:24	JW
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	241551	1	04/25/2017 11:01	EI
Ethylene	BRL		3.5	7.0	ug/L	241551	1	04/25/2017 11:01	EI
Methane	150		1.2	4.0	ug/L	241551	1	04/25/2017 11:01	EI
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	782		6.47	100	ug/L	241688	1	04/27/2017 11:08	JS
Manganese	1300		0.344	5.00	ug/L	241688	1	04/27/2017 11:08	JS
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	78.0		1.68	3.00	mg/L	R341616	1	04/26/2017 11:15	BD
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	1.4	J	0.47	2.0	ug/L	241698	1	04/26/2017 18:11	NP
Surr: 4-Bromofluorobenzene	99.5		0	84.6-119	%REC	241698	1	04/26/2017 18:11	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	241698	1	04/26/2017 18:11	NP
Surr: Toluene-d8	98.7		0	85-115	%REC	241698	1	04/26/2017 18:11	NP

Qualifiers:

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- > Greater than Result value
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Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	Trip Blanks
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017
Lab ID:	1704H87-011	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/25/2017 08:14	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/25/2017 08:14	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/25/2017 08:14	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 08:14	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 08:14	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 08:14	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 08:14	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 08:14	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 08:14	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 08:14	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	241558	1	04/25/2017 08:14	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 08:14	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/25/2017 08:14	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 08:14	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 08:14	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	Trip Blanks
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017
Lab ID:	1704H87-011	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)									
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 08:14	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/25/2017 08:14	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 08:14	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/25/2017 08:14	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 08:14	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 08:14	NP
Surr: 4-Bromofluorobenzene	77		0	70-130	%REC	241558	1	04/25/2017 08:14	NP
Surr: Dibromofluoromethane	114		0	70-130	%REC	241558	1	04/25/2017 08:14	NP
Surr: Toluene-d8	101		0	70-130	%REC	241558	1	04/25/2017 08:14	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM (SW5030B)									
1,4-Dioxane	BRL		0.47	2.0	ug/L	241698	1	04/26/2017 09:18	NP
Surr: 4-Bromofluorobenzene	99		0	84.6-119	%REC	241698	1	04/26/2017 09:18	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241698	1	04/26/2017 09:18	NP
Surr: Toluene-d8	99		0	85-115	%REC	241698	1	04/26/2017 09:18	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	Trip Blank 2
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017
Lab ID:	1704H87-012	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/25/2017 08:39	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/25/2017 08:39	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/25/2017 08:39	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 08:39	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 08:39	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 08:39	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 08:39	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 08:39	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 08:39	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 08:39	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	241558	1	04/25/2017 08:39	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 08:39	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/25/2017 08:39	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 08:39	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 08:39	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	Trip Blank 2
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017
Lab ID:	1704H87-012	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 08:39	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/25/2017 08:39	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 08:39	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/25/2017 08:39	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 08:39	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 08:39	NP
Surr: 4-Bromofluorobenzene	76.1		0	70-130	%REC	241558	1	04/25/2017 08:39	NP
Surr: Dibromofluoromethane	111		0	70-130	%REC	241558	1	04/25/2017 08:39	NP
Surr: Toluene-d8	99.1		0	70-130	%REC	241558	1	04/25/2017 08:39	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	241698	1	04/26/2017 09:45	NP
Surr: 4-Bromofluorobenzene	99.6		0	84.6-119	%REC	241698	1	04/26/2017 09:45	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241698	1	04/26/2017 09:45	NP
Surr: Toluene-d8	99		0	85-115	%REC	241698	1	04/26/2017 09:45	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	Trip Blank 3
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017
Lab ID:	1704H87-013	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	241558	1	04/25/2017 09:04	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	241558	1	04/25/2017 09:04	NP
1,4-Dioxane	BRL		26	150	ug/L	241558	1	04/25/2017 09:04	NP
2-Butanone	BRL		2.5	10	ug/L	241558	1	04/25/2017 09:04	NP
2-Hexanone	BRL		0.67	10	ug/L	241558	1	04/25/2017 09:04	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	241558	1	04/25/2017 09:04	NP
Acetone	BRL		3.6	20	ug/L	241558	1	04/25/2017 09:04	NP
Benzene	BRL		0.37	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Bromoform	BRL		0.19	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Bromomethane	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	241558	1	04/25/2017 09:04	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	241558	1	04/25/2017 09:04	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Chloroethane	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Chloroform	BRL		0.20	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Chloromethane	BRL		0.21	1.0	ug/L	241558	1	04/25/2017 09:04	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	241558	1	04/25/2017 09:04	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Cyclohexane	BRL		1.0	2.0	ug/L	241558	1	04/25/2017 09:04	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Freon-113	BRL		0.32	5.0	ug/L	241558	1	04/25/2017 09:04	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Methyl acetate	BRL		0.42	2.0	ug/L	241558	1	04/25/2017 09:04	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	241558	1	04/25/2017 09:04	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
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- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client:	GHD Services, Inc.	**Client Sample ID:**	Trip Blank 3
Project Name:	Aqua-Tech Environmental	**Collection Date:**	4/20/2017
Lab ID:	1704H87-013	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylcyclohexane	BRL		0.39	2.0	ug/L	241558	1	04/25/2017 09:04	NP
Methylene chloride	BRL		1.2	5.0	ug/L	241558	1	04/25/2017 09:04	NP
Styrene	BRL		0.15	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Toluene	BRL		0.39	1.0	ug/L	241558	1	04/25/2017 09:04	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	241558	1	04/25/2017 09:04	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	241558	1	04/25/2017 09:04	NP
Trichloroethene	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	241558	1	04/25/2017 09:04	NP
Surr: 4-Bromofluorobenzene	77.7		0	70-130	%REC	241558	1	04/25/2017 09:04	NP
Surr: Dibromofluoromethane	111		0	70-130	%REC	241558	1	04/25/2017 09:04	NP
Surr: Toluene-d8	99.6		0	70-130	%REC	241558	1	04/25/2017 09:04	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	241698	1	04/26/2017 10:13	NP
Surr: 4-Bromofluorobenzene	100		0	84.6-119	%REC	241698	1	04/26/2017 10:13	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	241698	1	04/26/2017 10:13	NP
Surr: Toluene-d8	99.2		0	85-115	%REC	241698	1	04/26/2017 10:13	NP

Qualifiers:

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- Narr See case narrative

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AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: GHD Services, Inc. AES Work Order Number: 1704H87

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 2.9 °C Cooler 2 Temperature 3.4 °C Cooler 3 Temperature 5.1 °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MJ 4/20/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	○	●	○	incomplete info ■ illegible ☐ no label ☐ other ■	See narrative
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). TR 4/20/17

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked?	●	○	○		As applicable.
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted?	○	○	●		

I certify that I have completed sections 28-30 (dated initials). TR 4/20/17

Checklist 1/19/17 Rev 0.

Locked

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1704H87

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1704H87-001A	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/24/2017
1704H87-001A	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-001B	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/27/2017
1704H87-001C	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-001D	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-001E	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-001F	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	Alkalinity by SM2320B			04/26/2017
1704H87-001G	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-001G	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	ION SCAN			04/21/2017
1704H87-001H	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704H87-001H	GW-013926-041917-SAG-006	4/19/2017 2:30:00PM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-002A	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/24/2017
1704H87-002A	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-002B	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/27/2017
1704H87-002C	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-002D	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-002E	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-002F	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	Alkalinity by SM2320B			04/26/2017
1704H87-002G	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-002G	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	ION SCAN			04/21/2017
1704H87-002H	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704H87-002H	GW-013926-041917-SAG-007	4/19/2017 3:50:00PM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-003A	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/24/2017
1704H87-003A	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-003B	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/26/2017
1704H87-003C	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-003D	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-003E	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-003F	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	Alkalinity by SM2320B			04/24/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1704H87

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1704H87-003G	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-003G	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	ION SCAN			04/21/2017
1704H87-003H	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704H87-003H	GW-013926-042017-SAG-008	4/20/2017 9:50:00AM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-004A	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-004A	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-004B	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/27/2017
1704H87-004C	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-004D	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-004E	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-004F	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	Alkalinity by SM2320B			04/26/2017
1704H87-004G	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-004G	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	ION SCAN			04/21/2017
1704H87-004H	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704H87-004H	GW-013926-042017-SAG-009	4/20/2017 10:00:00AM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-005A	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-005A	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-005B	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/27/2017
1704H87-005C	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-005D	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-005E	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-005F	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	Alkalinity by SM2320B			04/26/2017
1704H87-005G	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-005G	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	ION SCAN			04/21/2017
1704H87-005H	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704H87-005H	GW-013926-041917-DJB-106	4/19/2017 1:00:00PM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-006A	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-006A	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-006B	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/27/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1704H87

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1704H87-006C	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-006D	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-006E	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-006F	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	Alkalinity by SM2320B			04/26/2017
1704H87-006G	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-006G	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	ION SCAN			04/21/2017
1704H87-006H	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704H87-006H	GW-013926-041917-DJB-107	4/19/2017 2:15:00PM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-007A	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-007A	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-007B	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/27/2017
1704H87-007C	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-007D	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-007E	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-007F	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	Alkalinity by SM2320B			04/26/2017
1704H87-007G	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-007G	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	ION SCAN			04/21/2017
1704H87-007H	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704H87-007H	GW-013926-041917-DJB-108	4/19/2017 3:45:00PM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-008A	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-008A	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/27/2017
1704H87-008B	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/27/2017
1704H87-008C	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-008D	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-008E	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-008F	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	Alkalinity by SM2320B			04/26/2017
1704H87-008G	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-008G	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	ION SCAN			04/21/2017
1704H87-008H	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1704H87

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1704H87-008H	GW-013926-042017-DJB-109	4/20/2017 9:35:00AM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-009A	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-009A	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-009B	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/27/2017
1704H87-009C	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-009D	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-009E	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-009F	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	Alkalinity by SM2320B			04/26/2017
1704H87-009G	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-009G	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	ION SCAN			04/21/2017
1704H87-009H	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704H87-009H	GW-013926-042017-DJB-110	4/20/2017 10:45:00AM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-010A	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-010A	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-010B	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		4/25/2017 11:00:00AM	04/27/2017
1704H87-010C	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	GC Analysis of Gaseous Samples		4/25/2017 9:00:00AM	04/25/2017
1704H87-010D	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	Total Metals by ICP/MS		4/24/2017 4:23:00PM	04/26/2017
1704H87-010E	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	Dissolved Metals by ICP/MS		4/26/2017 4:53:00PM	04/27/2017
1704H87-010F	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	Alkalinity by SM2320B			04/26/2017
1704H87-010G	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	Phosphorus, ortho			04/21/2017
1704H87-010G	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	ION SCAN			04/21/2017
1704H87-010H	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	Nitrogen, Ammonia (as N)			04/25/2017
1704H87-010H	GW-013926-042017-DJB-111	4/20/2017 12:00:00PM	Groundwater	Total Organic Carbon (TOC)			04/26/2017
1704H87-011A	Trip Blanks	4/20/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-011A	Trip Blanks	4/20/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-012A	Trip Blank 2	4/20/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-012A	Trip Blank 2	4/20/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017
1704H87-013A	Trip Blank 3	4/20/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/24/2017 4:41:00PM	04/25/2017
1704H87-013A	Trip Blank 3	4/20/2017 12:00:00AM	Aqueous	Volatile Organic Compounds by GC/MS		4/26/2017 8:14:00AM	04/26/2017

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1704H87

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241409

Sample ID: **LCS-241409** Client ID: Units: **ug/L** Prep Date: **04/25/2017** Run No: **341623**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241409** Analysis Date: **04/26/2017** Seq No: **7483085**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.08900	0.020	0.1000		89.0	60	140				
Surr: 4-Bromofluorobenzene	4.834	0	5.000		96.7	64.9	131				

Sample ID: **LCSD-241409** Client ID: Units: **ug/L** Prep Date: **04/25/2017** Run No: **341623**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241409** Analysis Date: **04/26/2017** Seq No: **7481646**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09200	0.020	0.1000		92.0	60	140	0	0	20	
Surr: 4-Bromofluorobenzene	5.147	0	5.000		103	64.9	131	0	0	0	

Sample ID: **1704H87-003BMS** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/25/2017** Run No: **341623**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241409** Analysis Date: **04/26/2017** Seq No: **7481648**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.08458	0.020	0.1007		84.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.207	0	5.035		103	64.9	131				

Sample ID: **1704H87-003BMSD** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/25/2017** Run No: **341623**
SampleType: **MSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241409** Analysis Date: **04/26/2017** Seq No: **7481649**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.08800	0.020	0.1000		88.0	65.6	136	0.08458	3.96	20	
Surr: 4-Bromofluorobenzene	5.005	0	5.000		100	64.9	131	5.207	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241437

Sample ID: **MB-241437** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341541**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241437** Analysis Date: **04/26/2017** Seq No: **7479339**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00									
Barium	BRL	10.0									
Cadmium	BRL	0.700									
Chromium	0.7630	5.00									J
Copper	BRL	2.00									
Lead	BRL	1.00									
Selenium	BRL	5.00									

Sample ID: **LCS-241437** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341541**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241437** Analysis Date: **04/26/2017** Seq No: **7479340**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	99.13	5.00	100.0		99.1	80	120				
Barium	98.09	10.0	100.0		98.1	80	120				
Cadmium	98.56	0.700	100.0		98.6	80	120				
Chromium	94.43	5.00	100.0	0.7630	93.7	80	120				
Copper	94.83	2.00	100.0		94.8	80	120				
Lead	93.36	1.00	100.0		93.4	80	120				
Selenium	100.5	5.00	100.0		100	80	120				

Sample ID: **1704H87-003DMS** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341541**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241437** Analysis Date: **04/26/2017** Seq No: **7479342**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	98.57	5.00	100.0		98.6	75	125				
Barium	293.7	10.0	100.0	195.8	97.9	75	125				
Cadmium	100.1	0.700	100.0	0.5860	99.5	75	125				
Chromium	95.02	5.00	100.0	1.313	93.7	75	125				

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241437

Sample ID: **1704H87-003DMS** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341541**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241437** Analysis Date: **04/26/2017** Seq No: **7479342**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Copper	97.30	2.00	100.0	3.793	93.5	75	125				
Lead	95.26	1.00	100.0	0.3730	94.9	75	125				
Selenium	99.27	5.00	100.0	0.3670	98.9	75	125				

Sample ID: **1704H87-003DMSD** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341541**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **241437** Analysis Date: **04/26/2017** Seq No: **7479343**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	99.63	5.00	100.0		99.6	75	125	98.57	1.07	20	
Barium	297.4	10.0	100.0	195.8	102	75	125	293.7	1.25	20	
Cadmium	101.9	0.700	100.0	0.5860	101	75	125	100.1	1.78	20	
Chromium	96.86	5.00	100.0	1.313	95.5	75	125	95.02	1.92	20	
Copper	98.88	2.00	100.0	3.793	95.1	75	125	97.30	1.61	20	
Lead	96.94	1.00	100.0	0.3730	96.6	75	125	95.26	1.75	20	
Selenium	100.6	5.00	100.0	0.3670	100	75	125	99.27	1.33	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241484

Sample ID: **MB-241409** Client ID: Units: **ug/L** Prep Date: **04/25/2017** Run No: **341623**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **241484** Analysis Date: **04/25/2017** Seq No: **7481477**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	6.227	0	5.000		125	64.9	131				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241551

Sample ID: **MB-241551** Client ID:
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**
Units: **ug/L** BatchID: **241551**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341479** Seq No: **7477547**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9.0									
Ethylene	BRL	7.0									
Methane	BRL	4.0									

Sample ID: **LCS-241551** Client ID:
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**
Units: **ug/L** BatchID: **241551**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341479** Seq No: **7477548**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	134.5	9.0	200.0		67.2	43.9	115				
Ethylene	90.30	7.0	200.0		45.2	29.6	115				
Methane	140.7	4.0	200.0		70.4	49.2	115				

Sample ID: **LCSD-241551** Client ID:
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**
Units: **ug/L** BatchID: **241551**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341479** Seq No: **7477549**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	127.0	9.0	200.0		63.5	43.9	115	134.5	5.71	20	
Ethylene	85.40	7.0	200.0		42.7	29.6	115	90.30	5.58	20	
Methane	133.9	4.0	200.0		66.9	49.2	115	140.7	5.01	20	

Sample ID: **1704H87-003CMS** Client ID: **GW-013926-042017-SAG-008**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**
Units: **ug/L** BatchID: **241551**
Prep Date: **04/25/2017** Analysis Date: **04/25/2017**
Run No: **341479** Seq No: **7477566**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	125.8	9.0	200.0		62.9	36.3	115				
Ethylene	84.32	7.0	200.0		42.2	27	115				
Methane	184.8	4.0	200.0	45.21	69.8	40.5	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241551

Sample ID: **1704H87-003CMSD** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/25/2017** Run No: **341479**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **241551** Analysis Date: **04/25/2017** Seq No: **7477568**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	123.0	9.0	200.0		61.5	36.3	115	125.8	2.25	20	
Ethylene	82.16	7.0	200.0		41.1	27	115	84.32	2.60	20	
Methane	181.8	4.0	200.0	45.21	68.3	40.5	115	184.8	1.64	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241558

Sample ID: **MB-241558** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241558** Analysis Date: **04/24/2017** Seq No: **7475882**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2,4-Trimethylbenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3,5-Trimethylbenzene	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
1,4-Dioxane	BRL	150									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241558

Sample ID: **MB-241558** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241558** Analysis Date: **04/24/2017** Seq No: **7475882**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	40.48	0	50.00		81.0	70	130				
Surr: Dibromofluoromethane	53.97	0	50.00		108	70	130				
Surr: Toluene-d8	50.52	0	50.00		101	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241558

Sample ID: **LCS-241558** Client ID:
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **241558**
Prep Date: **04/24/2017** Analysis Date: **04/24/2017**
Run No: **341400** Seq No: **7475881**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	61.60	1.0	50.00		123	70	130				
1,1,2,2-Tetrachloroethane	47.47	1.0	50.00		94.9	70	130				
1,1,2-Trichloroethane	50.24	1.0	50.00		100	70	130				
1,1-Dichloroethane	50.28	1.0	50.00		101	70	130				
1,1-Dichloroethene	55.98	2.0	50.00		112	60	140				
1,2,4-Trichlorobenzene	38.84	1.0	50.00		77.7	70	130				
1,2,4-Trimethylbenzene	45.08	1.0	50.00		90.2	70	130				
1,2-Dibromo-3-chloropropane	42.47	1.0	50.00		84.9	70	130				
1,2-Dichlorobenzene	41.25	1.0	50.00		82.5	70	130				
1,2-Dichloroethane	48.56	1.0	50.00		97.1	70	130				
1,2-Dichloropropane	47.46	1.0	50.00		94.9	70	130				
1,3,5-Trimethylbenzene	46.01	1.0	50.00		92.0	70	130				
1,3-Dichlorobenzene	43.24	1.0	50.00		86.5	70	130				
1,4-Dichlorobenzene	45.00	1.0	50.00		90.0	70	130				
Benzene	53.75	1.0	50.00		108	70	130				
Bromodichloromethane	45.43	1.0	50.00		90.9	70	130				
Bromoform	45.23	1.0	50.00		90.5	70	130				
Carbon tetrachloride	60.67	2.0	50.00		121	70	130				
Chlorobenzene	48.59	1.0	50.00		97.2	70	130				
Chloroform	53.49	1.0	50.00		107	70	130				
cis-1,2-Dichloroethene	52.38	1.0	50.00		105	70	130				
cis-1,3-Dichloropropene	43.96	1.0	50.00		87.9	70	130				
Dibromochloromethane	44.38	1.0	50.00		88.8	70	130				
Ethylbenzene	51.50	1.0	50.00		103	70	130				
Isopropylbenzene	42.67	1.0	50.00		85.3	70	130				
Methylene chloride	54.94	5.0	50.00		110	70	130				
Styrene	53.51	1.0	50.00		107	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241558

Sample ID: **LCS-241558** Client ID: Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241558** Analysis Date: **04/24/2017** Seq No: **7475881**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	53.68	1.0	50.00		107	70	130				
Toluene	53.16	1.0	50.00		106	70	130				
trans-1,2-Dichloroethene	55.79	2.0	50.00		112	70	130				
trans-1,3-Dichloropropene	42.01	2.0	50.00		84.0	70	130				
Trichloroethene	51.91	1.0	50.00		104	70	130				
Vinyl chloride	62.68	1.0	50.00		125	70	130				
Xylenes, Total	152.0	1.0	150.0		101	70	130				
Surr: 4-Bromofluorobenzene	48.55	0	50.00		97.1	70	130				
Surr: Dibromofluoromethane	53.30	0	50.00		107	70	130				
Surr: Toluene-d8	51.38	0	50.00		103	70	130				

Sample ID: **1704H87-003AMS** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241558** Analysis Date: **04/24/2017** Seq No: **7475886**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	63.16	1.0	50.00		126	72.2	142				
1,1,2,2-Tetrachloroethane	54.88	1.0	50.00	7.830	94.1	69.5	127				
1,1,2-Trichloroethane	53.29	1.0	50.00		107	75.4	127				
1,1-Dichloroethane	52.69	1.0	50.00	1.000	103	64.4	128				
1,1-Dichloroethene	115.7	2.0	100.0		116	64.3	149				
1,2,4-Trichlorobenzene	38.96	1.0	50.00		77.9	62.3	123				
1,2,4-Trimethylbenzene	44.91	1.0	50.00		89.8	70.3	128				
1,2-Dibromo-3-chloropropane	41.54	1.0	50.00		83.1	58.9	131				
1,2-Dichlorobenzene	42.04	1.0	50.00		84.1	66.8	125				
1,2-Dichloroethane	51.40	1.0	50.00		103	71.9	139				
1,2-Dichloropropane	46.74	1.0	50.00		93.5	73.2	126				
1,3,5-Trimethylbenzene	45.79	1.0	50.00		91.6	70	129				
1,3-Dichlorobenzene	43.57	1.0	50.00		87.1	69.7	123				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241558

Sample ID: **1704H87-003AMS** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241558** Analysis Date: **04/24/2017** Seq No: **7475886**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	45.93	1.0	50.00		91.9	66.8	126				
Benzene	108.6	1.0	100.0		109	71.6	132				
Bromodichloromethane	45.82	1.0	50.00		91.6	71.8	133				
Bromoform	43.59	1.0	50.00		87.2	58.2	132				
Carbon tetrachloride	60.06	2.0	50.00		120	61.8	142				
Chlorobenzene	98.63	1.0	100.0		98.6	73.1	126				
Chloroform	56.14	1.0	50.00		112	70.1	133				
cis-1,2-Dichloroethene	88.22	1.0	50.00	27.18	122	71.4	136				
cis-1,3-Dichloropropene	43.18	1.0	50.00		86.4	65.9	128				
Dibromochloromethane	44.36	1.0	50.00		88.7	63.8	134				
Ethylbenzene	51.90	1.0	50.00		104	81.2	130				
Isopropylbenzene	41.08	1.0	50.00		82.2	66	127				
Methylene chloride	60.75	5.0	50.00		122	68.4	135				
Styrene	53.74	1.0	50.00		107	70.1	128				
Tetrachloroethene	63.11	1.0	50.00	8.570	109	69.1	133				
Toluene	110.3	1.0	100.0		110	72.5	135				
trans-1,2-Dichloroethene	56.66	2.0	50.00		113	62.4	132				
trans-1,3-Dichloropropene	41.83	2.0	50.00		83.7	69.7	137				
Trichloroethene	189.2	1.0	100.0	79.13	110	70.2	132				
Vinyl chloride	68.95	1.0	50.00		138	55.9	136				S
Xylenes, Total	154.8	1.0	150.0		103	76.1	139				
Surr: 4-Bromofluorobenzene	47.94	0	50.00		95.9	70	130				
Surr: Dibromofluoromethane	54.69	0	50.00		109	70	130				
Surr: Toluene-d8	51.91	0	50.00		104	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241558

Sample ID: **1704H87-003AMSD** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241558** Analysis Date: **04/24/2017** Seq No: **7475887**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.46	1.0	50.00		119	72.2	142	63.16	6.03	20	
1,1,2,2-Tetrachloroethane	56.40	1.0	50.00	7.830	97.1	69.5	127	54.88	2.73	20	
1,1,2-Trichloroethane	51.10	1.0	50.00		102	75.4	127	53.29	4.20	20	
1,1-Dichloroethane	51.17	1.0	50.00	1.000	100	64.4	128	52.69	2.93	20	
1,1-Dichloroethene	108.0	2.0	100.0		108	64.3	149	115.7	6.90	30.8	
1,2,4-Trichlorobenzene	42.28	1.0	50.00		84.6	62.3	123	38.96	8.17	36.8	
1,2,4-Trimethylbenzene	46.83	1.0	50.00		93.7	70.3	128	44.91	4.19	20	
1,2-Dibromo-3-chloropropane	43.56	1.0	50.00		87.1	58.9	131	41.54	4.75	20	
1,2-Dichlorobenzene	44.13	1.0	50.00		88.3	66.8	125	42.04	4.85	20	
1,2-Dichloroethane	49.82	1.0	50.00		99.6	71.9	139	51.40	3.12	20	
1,2-Dichloropropane	46.64	1.0	50.00		93.3	73.2	126	46.74	0.214	20	
1,3,5-Trimethylbenzene	48.34	1.0	50.00		96.7	70	129	45.79	5.42	20	
1,3-Dichlorobenzene	45.96	1.0	50.00		91.9	69.7	123	43.57	5.34	20	
1,4-Dichlorobenzene	47.52	1.0	50.00		95.0	66.8	126	45.93	3.40	20	
Benzene	107.2	1.0	100.0		107	71.6	132	108.6	1.25	20.7	
Bromodichloromethane	45.73	1.0	50.00		91.5	71.8	133	45.82	0.197	20	
Bromoform	44.20	1.0	50.00		88.4	58.2	132	43.59	1.39	20	
Carbon tetrachloride	58.34	2.0	50.00		117	61.8	142	60.06	2.91	20	
Chlorobenzene	96.91	1.0	100.0		96.9	73.1	126	98.63	1.76	26.6	
Chloroform	52.53	1.0	50.00		105	70.1	133	56.14	6.64	20	
cis-1,2-Dichloroethene	83.24	1.0	50.00	27.18	112	71.4	136	88.22	5.81	20	
cis-1,3-Dichloropropene	43.10	1.0	50.00		86.2	65.9	128	43.18	0.185	20	
Dibromochloromethane	43.46	1.0	50.00		86.9	63.8	134	44.36	2.05	20	
Ethylbenzene	51.78	1.0	50.00		104	81.2	130	51.90	0.231	20	
Isopropylbenzene	43.27	1.0	50.00		86.5	66	127	41.08	5.19	20	
Methylene chloride	55.34	5.0	50.00		111	68.4	135	60.75	9.32	20	
Styrene	52.85	1.0	50.00		106	70.1	128	53.74	1.67	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241558

Sample ID: **1704H87-003AMSD** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/24/2017** Run No: **341400**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **241558** Analysis Date: **04/24/2017** Seq No: **7475887**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	65.00	1.0	50.00	8.570	113	69.1	133	63.11	2.95	20	
Toluene	107.6	1.0	100.0		108	72.5	135	110.3	2.47	23.2	
trans-1,2-Dichloroethene	54.84	2.0	50.00		110	62.4	132	56.66	3.26	20	
trans-1,3-Dichloropropene	41.43	2.0	50.00		82.9	69.7	137	41.83	0.961	20	
Trichloroethene	186.5	1.0	100.0	79.13	107	70.2	132	189.2	1.42	27.7	
Vinyl chloride	67.47	1.0	50.00		135	55.9	136	68.95	2.17	20	
Xylenes, Total	153.0	1.0	150.0		102	76.1	139	154.8	1.16	20	
Surr: 4-Bromofluorobenzene	47.13	0	50.00		94.3	70	130	47.94	0	0	
Surr: Dibromofluoromethane	53.16	0	50.00		106	70	130	54.69	0	0	
Surr: Toluene-d8	51.46	0	50.00		103	70	130	51.91	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241688

Sample ID: **MB-241688** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341665**
SampleType: **MBLK** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241688** Analysis Date: **04/27/2017** Seq No: **7482439**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	BRL	100									
Manganese	BRL	5.00									

Sample ID: **LCS-241688** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341665**
SampleType: **LCS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241688** Analysis Date: **04/27/2017** Seq No: **7482440**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	904.5	100	1000		90.4	80	120				
Manganese	90.99	5.00	100.0		91.0	80	120				

Sample ID: **1704H87-003EMS** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/26/2017** Run No: **341665**
SampleType: **MS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241688** Analysis Date: **04/27/2017** Seq No: **7482442**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	994.1	100	1000	92.07	90.2	75	125				
Manganese	383.4	5.00	100.0	288.2	95.2	75	125				

Sample ID: **1704H87-003EMSD** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/26/2017** Run No: **341665**
SampleType: **MSD** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **241688** Analysis Date: **04/27/2017** Seq No: **7482443**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	999.5	100	1000	92.07	90.7	75	125	994.1	0.542	20	
Manganese	381.2	5.00	100.0	288.2	93.0	75	125	383.4	0.575	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241698

Sample ID: **MB-241698** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341606**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **241698** Analysis Date: **04/26/2017** Seq No: **7480893**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	49.90	0	50.00		99.8	84.6	119				
Surr: Dibromofluoromethane	50.94	0	50.00		102	80	119				
Surr: Toluene-d8	49.70	0	50.00		99.4	85	115				

Sample ID: **LCS-241698** Client ID: Units: **ug/L** Prep Date: **04/26/2017** Run No: **341606**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **241698** Analysis Date: **04/26/2017** Seq No: **7480892**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.47	5.0	10.00		105	68.1	133				
Surr: 4-Bromofluorobenzene	49.71	0	50.00		99.4	84.6	119				
Surr: Dibromofluoromethane	50.39	0	50.00		101	80	119				
Surr: Toluene-d8	49.67	0	50.00		99.3	85	115				

Sample ID: **1704H87-003AMS** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/26/2017** Run No: **341606**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **241698** Analysis Date: **04/26/2017** Seq No: **7480898**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	23.21	5.0	10.00	11.96	112	65.9	135				
Surr: 4-Bromofluorobenzene	49.56	0	50.00		99.1	84.6	119				
Surr: Dibromofluoromethane	50.88	0	50.00		102	80	119				
Surr: Toluene-d8	49.90	0	50.00		99.8	85	115				

Sample ID: **1704H87-003AMSD** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/26/2017** Run No: **341606**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **241698** Analysis Date: **04/26/2017** Seq No: **7480899**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	26.38	5.0	10.00	11.96	144	65.9	135	23.21	12.8	31.5	S

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: 241698

Sample ID: **1704H87-003AMSD** Client ID: **GW-013926-042017-SAG-008** Units: **ug/L** Prep Date: **04/26/2017** Run No: **341606**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **241698** Analysis Date: **04/26/2017** Seq No: **7480899**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	49.10	0	50.00		98.2	84.6	119	49.56	0	0	
Surr: Dibromofluoromethane	50.70	0	50.00		101	80	119	50.88	0	0	
Surr: Toluene-d8	49.63	0	50.00		99.3	85	115	49.90	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: **R341256**

Sample ID: **MB-R341256** Client ID: Units: **mg/L** Prep Date: Run No: **341256**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341256** Analysis Date: **04/21/2017** Seq No: **7473409**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R341256** Client ID: Units: **mg/L** Prep Date: Run No: **341256**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341256** Analysis Date: **04/21/2017** Seq No: **7473410**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09900	0.0100	0.1000		99.0	90	110				

Sample ID: **1704H87-002GMS** Client ID: **GW-013926-041917-SAG-007** Units: **mg/L** Prep Date: Run No: **341256**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341256** Analysis Date: **04/21/2017** Seq No: **7473428**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1030	0.0100	0.1000	0.006370	96.6	90	110				

Sample ID: **1704H87-003GMS** Client ID: **GW-013926-042017-SAG-008** Units: **mg/L** Prep Date: Run No: **341256**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341256** Analysis Date: **04/21/2017** Seq No: **7473414**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1040	0.0100	0.1000	0.005240	98.8	90	110				

Sample ID: **1704H87-003GMSD** Client ID: **GW-013926-042017-SAG-008** Units: **mg/L** Prep Date: Run No: **341256**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R341256** Analysis Date: **04/21/2017** Seq No: **7473415**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1020	0.0100	0.1000	0.005240	96.8	90	110	0.1040	1.94	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: R341456

Sample ID: **MB-R341456** Client ID: Units: **mg/L** Prep Date: Run No: **341456**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R341456** Analysis Date: **04/24/2017** Seq No: **7477080**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R341456** Client ID: Units: **mg/L** Prep Date: Run No: **341456**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R341456** Analysis Date: **04/24/2017** Seq No: **7477081**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	128.0	3.00	125.0		102	75	125				

Sample ID: **1704H87-003FDUP** Client ID: **GW-013926-042017-SAG-008** Units: **mg/L** Prep Date: Run No: **341456**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R341456** Analysis Date: **04/24/2017** Seq No: **7477092**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	6.000	3.00						6.000	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: R341483

Sample ID: **MB-R341483** Client ID: Units: **mg/L** Prep Date: Run No: **341483**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341483** Analysis Date: **04/25/2017** Seq No: **7477688**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R341483** Client ID: Units: **mg/L** Prep Date: Run No: **341483**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341483** Analysis Date: **04/25/2017** Seq No: **7477689**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.010	0.020	1.000		101	90	110				

Sample ID: **1704H87-003HMS** Client ID: **GW-013926-042017-SAG-008** Units: **mg/L** Prep Date: Run No: **341483**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341483** Analysis Date: **04/25/2017** Seq No: **7477693**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9650	0.020	1.000		96.5	90	110				

Sample ID: **1704H87-003HMSD** Client ID: **GW-013926-042017-SAG-008** Units: **mg/L** Prep Date: Run No: **341483**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R341483** Analysis Date: **04/25/2017** Seq No: **7477694**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9740	0.020	1.000		97.4	90	110	0.9650	0.928	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: R341539

Sample ID: **MB-R341539** Client ID: Units: **mg/L** Prep Date: Run No: **341539**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R341539** Analysis Date: **04/21/2017** Seq No: **7479018**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R341539** Client ID: Units: **mg/L** Prep Date: Run No: **341539**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R341539** Analysis Date: **04/21/2017** Seq No: **7479017**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	5.039	1.0	5.000		101	90	110				
Nitrate	4.988	0.25	5.000		99.8	90	110				
Sulfate	23.14	1.0	25.00		92.5	90	110				

Sample ID: **1704H87-003GMS** Client ID: **GW-013926-042017-SAG-008** Units: **mg/L** Prep Date: Run No: **341539**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R341539** Analysis Date: **04/21/2017** Seq No: **7479034**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	54.07	5.0	25.00	28.84	101	90	110				
Nitrate	25.19	1.2	25.00	0.3311	99.4	90	110				
Sulfate	117.1	5.0	125.0	2.026	92.1	90	110				

Sample ID: **1704H87-010GMS** Client ID: **GW-013926-042017-DJB-111** Units: **mg/L** Prep Date: Run No: **341539**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R341539** Analysis Date: **04/21/2017** Seq No: **7479037**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	5.944	1.0	5.000	1.032	98.2	90	110				
Nitrate	4.989	0.25	5.000	0.05635	98.7	90	110				
Sulfate	31.96	1.0	25.00	7.456	98.0	90	110				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: **R341539**

Sample ID: **1704H87-003GMSD** Client ID: **GW-013926-042017-SAG-008** Units: **mg/L** Prep Date: Run No: **341539**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R341539** Analysis Date: **04/21/2017** Seq No: **7479035**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	54.58	5.0	25.00	28.84	103	90	110	54.07	0.943	20	
Nitrate	25.37	1.2	25.00	0.3311	100	90	110	25.19	0.729	20	
Sulfate	118.2	5.0	125.0	2.026	92.9	90	110	117.1	0.906	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: R341608

Sample ID: **MB-R341608** Client ID: Units: **mg/L** Prep Date: Run No: **341608**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R341608** Analysis Date: **04/26/2017** Seq No: **7482626**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R341608** Client ID: Units: **mg/L** Prep Date: Run No: **341608**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R341608** Analysis Date: **04/26/2017** Seq No: **7482625**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.18	1.00	25.00		101	90	110				

Sample ID: **1704H87-003HMS** Client ID: **GW-013926-042017-SAG-008** Units: **mg/L** Prep Date: Run No: **341608**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R341608** Analysis Date: **04/26/2017** Seq No: **7482630**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	28.68	1.00	25.00	2.764	104	80	120				

Sample ID: **1704H87-003HMSD** Client ID: **GW-013926-042017-SAG-008** Units: **mg/L** Prep Date: Run No: **341608**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R341608** Analysis Date: **04/26/2017** Seq No: **7482632**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	30.73	1.00	25.00	2.764	112	80	120	28.68	6.90	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc **Date:** 28-Apr-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1704H87

ANALYTICAL QC SUMMARY REPORT

BatchID: **R341616**

Sample ID: **MB-R341616** Client ID: Units: **mg/L** Prep Date: Run No: **341616**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R341616** Analysis Date: **04/26/2017** Seq No: **7481141**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R341616** Client ID: Units: **mg/L** Prep Date: Run No: **341616**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R341616** Analysis Date: **04/26/2017** Seq No: **7481142**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	126.0	3.00	125.0		101	75	125				

Sample ID: **1704H87-001FDUP** Client ID: **GW-013926-041917-SAG-006** Units: **mg/L** Prep Date: Run No: **341616**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R341616** Analysis Date: **04/26/2017** Seq No: **7481167**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	20.00	3.00						20.00	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Attachment C
Analytical Results

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	
	Sample Name:	GW-020311-SAG-105	GW-051811-DJB-005	GW-070611-EAH-001	GW-101111-DJB-101	GW-042412-AWY-002	GW-042412-AWY-003	GW-103012-BCW-110	GW-041613-CRM-002	GW-013926-102313-DJB-101	GW-013926-042414-DWH-101	GW-0
	Sample Date:	2/3/2011	5/18/2011	7/6/2011	10/11/2011	4/24/2012	4/24/2012	10/30/2012	4/16/2013	10/23/2013	4/24/2014	
	Performance Event:	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post-injection	8th Post-injection	
Parameters	**Units**						Duplicate					
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	1.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	0.53 J	5.0 U	5.0 U	0.48 J	0.54 J	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L											
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	50 U	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
Acetone	ug/L	13 J	50 UJ	50 U	11 J	50 U	50 U	25.0 U	25.0 U	20 U	20 U	
Benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	0.70 J	5.0 U	0.69 J	0.73 J	0.67 J	0.40 J	0.46 J	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	8.6	1.0 J	5.0 U	5.0 U	0.65 J	5.0 U	2.1 J	1.3 J	1.8	1.3	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	6.2	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	17	5.8 J	6.2	4.1 J	5.8	5.9	4.0 J	3.7 J	3.2	2.2	
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**1800**	**630**	**170**	**390**	**610**	**530**	**583**	**537**	**740**	**540**	
Toluene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	**13**	2.4 J	5.0 U	5.0 U	1.9 J	2.2 J	3.7 J	2.9 J	**3.4**	**3.4**	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	0.23 J	5.0 U	5.0 U	
Vinyl chloride	ug/L	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Metals (Totals)												
Aluminum	mg/L	-	**1.72**	**18.3**	**1.07**	**2.83**	**2.20**	**8.51**	**27.7**	**13.1**	3.71 J	
Antimony	mg/L	-	0.0053 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	
Arsenic	mg/L	0.0500 U	0.0500 U	0.0155 J	0.107	0.0733	0.0731	0.0384	0.037	0.0123	0.0075	
Barium	mg/L	0.314	0.284	0.612	0.0811	0.0956	0.0826	0.196 J	0.684	0.334	0.11	
Beryllium	mg/L	-	0.0007 J	0.0011 J	0.0100 U	0.0100 U	0.0100 U	0.00063 J	0.0014	0.000756 J	0.001 U	
Cadmium	mg/L	0.0050 U	0.0003 J	0.0001 J	-	0.0034 J	0.0033 J	0.005 U	0.005 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	0.0050 U	-	-	0.0050 U	-	-	-	-	-	-	
Calcium	mg/L	-	31.1	22.0	9.86	3.65	3.44	1.08	1.6	1.1	0.507	
Chromium	mg/L	0.0094 J	**0.0385**	**0.152**	**0.142**	**0.0529**	**0.0512**	0.0055 J	**0.0518**	**0.0246**	**0.00986**	
Cobalt	mg/L	-	0.0018 J	0.0108 J	0.0010 J	0.0017 J	0.0014 J	0.0028 J	0.0102	0.00625	0.005 U	
Copper	mg/L	0.0011 J	0.0100 U	0.0059 J	0.0100 U	0.0100 U	0.0100 U	0.0023 J	0.0038 J	0.00311	0.002 U	
Iron	mg/L	**4.26**	**0.781**	**15.7**	**0.937**	**2.27**	**1.71**	**6.08**	**20.5**	**10.7**	2.9 J	
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	**0.114**	0.0428 J	0.1 U	0.1 U	
Lead	mg/L	**0.221**	0.0100 U	0.0093 J	0.0100 U	0.0019 J	0.0027 J	0.005 U	0.0218	0.00781	0.00202	
Magnesium	mg/L	-	13.7	15.4	5.00	2.56	2.36	2.53	7.68	4.19	1.3 J	
Manganese	mg/L	**0.637**	**0.661**	**0.845**	**0.390**	**0.306**	**0.263**	**0.585**	**2.42**	**1.34**	0.225 J	
Manganese (dissolved)	mg/L	**0.515**	**0.490**	**0.320**	**0.127**	0.0172 J	0.0293 J	**0.0245**	**0.0152**	0.00215 J	**0.00834**	
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00007 J	0.00020 U	

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

	Location ID:	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	
	Sample Name:	GW-020311-SAG-107	GW-051811-DJB-004	GW-070611-EAH-002	GW-101111-SAG-002	GW-101111-SAG-003	GW-042412-AWY-001	GW-103012-BCW-108	GW-041613-CRM-001	GW-013926-102313-SAG-005	GW-013926-042414-DWH-103	GW-01
	Sample Date:	2/3/2011	5/18/2011	7/6/2011	10/11/2011	10/11/2011	4/24/2012	10/30/2012	4/16/2013	10/23/2013	4/24/2014	
	Performance Event:	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post-injection	8th Post-injection	9
Parameters	**Units**					Duplicate						
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	5.0 U	R	R	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.021 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	1.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L											
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	50 U	50 UJ	50 U	50 U	10.0 U	10.0 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
Acetone	ug/L	50 U	2.9 J	38 J	17 J	20 J	7.2 J	25.0 U	25.0 U	14 J	20 U	
Benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	0.44 J	10.0 U	10.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 UJ	5.8	5.0 UJ	5.0 U	5.0 U	0.65 J	0.64 J	0.60 J	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	1.0 J	10 UJ	10 U	10 U	0.97 J	10.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	10	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	1.3 J	1.4 J	1.4	1.4	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	6.5	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	13	3.9 J	2.0 J	1.7 J	5.0 U	1.4 J	3.7 J	3.9 J	3.7	2.7	
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**1800**	520 J	**94**	210 J	410 J	**53**	**451**	**820**	**890**	**650**	
Toluene	ug/L	5.0 U	R	R	5.0 UJ	5.0 U	5.0 U	0.27 J	10.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	**13**	0.83 J	5.0 U	5.0 UJ	5.0 U	5.0 U	2.6 J	3.6 J	**2.8**	**3.2**	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	0.30 J	0.28 J	5.0 U	5.0 U	
Vinyl chloride	ug/L	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Metals (Totals)												
Aluminum	mg/L	-	**2.73**	**6.30**	**6.19**	**6.15**	**8.51**	**3.24**	**1.11**	**11.7**	**3.44**	
Antimony	mg/L	-	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0034 J	0.0092 J	0.0359	0.0506	
Barium	mg/L	0.240	0.835	0.832	0.244 J	0.130 J	0.155	0.08 J	0.0542 J	0.391	0.0992	
Beryllium	mg/L	-	0.0011 J	0.0026 J	0.0020 J	0.0021 J	0.0016 J	0.001 U	0.001 U	0.00081 J	0.001 U	
Cadmium	mg/L	0.0050 U	0.0008 J	0.0016 J	-	-	0.0050 U	0.005 U	0.005 U	0.000176 J	0.0007 U	
Cadmium (dissolved)	mg/L	0.0050 U	-	-	0.0010 J	0.0012 J	-	-	-	-	-	
Calcium	mg/L	-	80.9	230	153	167	60.5	5.47	0.717	2.6	0.439	
Chromium	mg/L	0.0057 J	**0.0156**	**0.0271**	**0.0731**	**0.0745**	**0.194**	**0.105**	**0.0454**	**0.0457**	**0.0167**	
Cobalt	mg/L	-	0.0023 J	0.0040 J	0.0070 J	0.0066 J	0.0060 J	0.0033 J	0.005 U	0.00696	0.005 U	
Copper	mg/L	0.0100 U	0.0100 U	0.0020 J	0.0018 J	0.0017 J	0.0100 U	0.025 U	0.025 U	0.0041	0.002 U	
Iron	mg/L	**2.37**	**1.42**	**0.939**	**1.63**	**1.04**	**5.94**	**2.47**	**1.06**	**11.6**	**3.08**	
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.0192 J	0.05 U	0.1 U	0.1 U	
Lead	mg/L	0.0013 J	0.0100 U	0.0015 J	0.0100 U	0.0100 U	0.0061 J	0.005 U	0.0042 J	0.00804	0.00179	
Magnesium	mg/L	-	36.7	90.5	66.8	73.1	24.7	2.87	0.692	5.21	1.28	
Manganese	mg/L	**0.211**	**0.239**	**6.17**	**5.24**	**4.60**	**2.36**	**0.532**	**0.0906**	**0.346**	**0.103**	
Manganese (dissolved)	mg/L	**0.180**	**0.137**	**5.81**	**4.23**	**4.30**	2.28 J	**0.296**	**0.0527**	**0.0337**	**0.0117**	
Mercury	mg/L	-	0.00004 J	0.00021 U	0.00002 J	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00020 U	0.00020 U	

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

	Location ID:	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
	Sample Name:	GW-020311-EAH-008	GW-051711-DJB-003	GW-070611-EAH-003	GW-101111-SAG-001	GW-042412-BCW-100	GW-103012-BCW-109	GW-041613-CRM-003	GW-013926-102313-SAG-004	GW-013926-042414-DWH-104	GW-013926-101414-SAG-004
	Sample Date:	2/3/2011	5/17/2011	7/6/2011	10/11/2011	4/24/2012	10/30/2012	4/16/2013	10/23/2013	4/24/2014	10/14/2014
	Performance Event:	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post-injection	8th Post-injection	9th Post-injection
Parameters	**Units**										
Volatile Organic Compounds											
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	1.0 U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	0.020 U	0.019 U	0.020 U	0.020 U	0.021 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	1.0 U	-
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L										
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 UJ	50 UJ	50 U	10.0 U	10.0 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	25 J	13 J	5.9 J	25.0 U	25.0 U	25 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	4.0 J	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	22	9.6	10 J	11 J	4.5 J	1.7 J	10.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	4.8 J	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	7.5 J	5.0 UJ	0.45 J	0.76 J	0.63 J	0.38 J	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	5.8 J	10 UJ	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	8.2	5.0 U	5.0 UJ	5.0 UJ	0.64 J	2.7 J	3.3 J	1.7	3.6	2.9
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	7.1 J	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	14	6.7	5.0 UJ	0.90 J	2.5 J	2.9 J	3.3 J	2.2	3.0	1.3
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**2000**	**2000**	13 J	120 J	**200**	**453**	**874**	**570**	**1200**	**870**
Toluene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	0.31 J	10.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	**13**	2.2 J	5.0 UJ	5.0 UJ	1.2 J	4.6 J	6.2 J	**3.4**	**6.8**	**5.5**
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	0.23 J	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 UJ	2.0 UJ	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Metals (Totals)											
Aluminum	mg/L	-	**7.99**	**2.74**	**1.46**	**0.661**	**1.3**	**1.29**	**5.4**	**0.749**	**6.66**
Antimony	mg/L	-	0.0024 J	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0026 J	0.01 U	0.01 U	0.00106 J	0.005 U	0.0024 J
Barium	mg/L	0.294	0.533	0.576	0.0462	0.0385	0.0609 J	0.066 J	0.175	0.075	0.202
Beryllium	mg/L	-	0.0012 J	0.0016 J	0.0013 J	0.0100 U	0.001 U	0.001 U	0.000842 J	0.001 U	0.000922 J
Cadmium	mg/L	0.0050 U	0.0050 U	0.0024 J	-	0.0050 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.00035 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	0.0017 J	-	-	-	-	-	-
Calcium	mg/L	-	90.1	517	415	65.8	14.3	3.72	4.37	3.05	4.43
Chromium	mg/L	**0.0427**	**0.0332**	**0.0638**	**0.216**	**0.143**	**0.106**	**0.078**	**0.0417**	**0.0234**	**0.0293**
Cobalt	mg/L	-	0.0049 J	0.0012 J	0.0033 J	~~0.0012~~ J	0.0026 J	0.005 U	0.00459 J	0.005 U	0.00389 J
Copper	mg/L	0.0071 J	0.0088 J	0.0041 J	0.0031 J	0.0100 U	0.025 U	0.025 U	0.00555	0.002 U	0.00804
Iron	mg/L	**11.4**	**13.1**	**2.19**	**0.371**	**0.817**	**1.8**	**2.05**	**8.45**	**1.33**	**9.36**
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.02 J	0.05 U	0.00927 J	0.1 U	**0.217**
Lead	mg/L	0.0043 J	0.0053 J	0.0012 J	0.0100 U	0.0023 J	0.005 U	0.005 U	0.0047	0.00105	0.00454
Magnesium	mg/L	-	35.3	161	121	22.6	4.4	1.53	3.12	1.08	2.31
Manganese	mg/L	**0.175**	**0.143**	**0.0375**	**0.0756**	**0.0299**	**0.0709**	**0.0297**	**0.115**	**0.0202**	**0.0996**
Manganese (dissolved)	mg/L	**0.0388**	0.0150 U	0.0009 J	**0.0545**	0.0184 J	**0.0223**	**0.0068**	**0.00885**	**0.00524**	**0.0233**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00004 J	0.00020 U	0.00077

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

	Location ID:	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39
	Sample Name:	GW-021611-DJB-216	GW-021611-DJB-217	GW-051711-DJB-002	GW-070611-DJB-103	GW-101111-DJB-102	GW-042412-BCW-101	GW-103012-BCW-106	GW-103012-BCW-107	GW-041613-CRM-004	GW-041613-CRM-005	GW-013926-102313-SAG-
	Sample Date:	2/16/2011	2/16/2011	5/17/2011	7/6/2011	10/11/2011	4/24/2012	10/30/2012	10/30/2012	4/16/2013	4/16/2013	10/24/2013
	Performance Event:	Pre-injection	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	5th Post-injection	6th Post-injection	6th Post-injection	7th Post-injection
Parameters	**Units**		Duplicate						Duplicate		Duplicate	
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.021 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,4-Dioxane	ug/L											
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U
Acetone	ug/L	50 U	50 U	50 U	50 U	16 J	11 J	25.0 U	10.1 J	25.0 U	25.0 U	12 J
Benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Bromoform	ug/L	**60**	**57**	**220**	**220**	**170**	**150**	**248**	**239**	**132**	**140**	**73**
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.87 J	0.68 J	0.80 J	0.50 J	0.45 J	0.73 J
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	0.22 J	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.87 J	1.1 J	0.48 J	0.45 J	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.94 J	1.3 J	10.0 U	10.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	9.1	9.0	11	11	5.6	5.4	1.6 J	1.9 J	1.4 J	1.4 J	0.52 J
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Tetrachloroethene	ug/L	**330**	**360**	**220**	**210**	**200**	**130**	**56.0**	**62.8**	**168**	**136**	**46**
Toluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.28 J	10.0 U	10.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
Trichloroethene	ug/L	3.6 J	3.2 J	5.0 U	1.5 J	5.0 U	5.0 U	10.0 U	10.0 U	0.54 J	10.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**12.9**	**14.9**	10.0 U	10.0 U	1.0 U
Metals (Totals)												
Aluminum	mg/L	-	-	**1.33**	**0.521**	**0.525**	**1.52**	**0.732**	**0.707**	**1.52**	**1.16**	**6.08**
Antimony	mg/L	-	-	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	0.000392 J
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0023 J	0.01 U	0.01 U	0.01 U	0.01 U	0.000373 J
Barium	mg/L	0.193	0.190	0.345	0.687	0.795	0.393	0.172 J	0.162 J	0.215	0.216	0.256
Beryllium	mg/L	-	-	0.0004 J	0.0007 J	0.0008 J	0.0100 U	0.00053 J	0.00052 J	0.001 U	0.001 U	0.00116
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0002 J	-	0.0050 U	0.005 U	0.005 U	0.005 U	0.005 U	0.000404 J
Cadmium (dissolved)	mg/L	0.0001 J	0.0050 U	-	-	0.0050 U	-	-	-	-	-	-
Calcium	mg/L	-	-	1.80	2.52	2.91	1.56	**1.66**	**1.58**	**1.73**	**2**	**2.27**
Chromium	mg/L	0.0008 J	0.0009 J	0.0013 J	0.0020 J	0.0032 J	0.0063 J	0.0082 J	**0.0111**	0.007 J	0.0064 J	**0.0116**
Cobalt	mg/L	-	-	0.0073 J	0.0129 J	0.0105 J	0.0072 J	0.0049 J	0.005	0.004 J	0.0038 J	0.0083
Copper	mg/L	0.0010 J	0.0488	0.0012 J	0.0100 U	0.0100 U	0.0100 U	0.025 U	0.025 U	0.025 U	0.025 U	0.00319
Iron	mg/L	-	-	**0.835**	**0.274**	**0.333**	**1.33**	**0.573**	**0.505**	**1.26**	**0.927**	**6.79**
Iron (dissolved)	mg/L	-	-	0.100 U	0.100 U	0.100 U	0.100 U	**0.0767**	0.05 U	0.05 U	0.018 J	0.0219 J
Lead	mg/L	0.0100 U	0.0100 U	0.0027 J	0.0006 J	0.0100 U	0.0050 J	0.005 U	0.005 U	0.0047 J	0.0048 J	0.0079
Magnesium	mg/L	-	-	4.03	7.70	**8.95**	**6.55**	**5.19**	**5.12**	**4.74**	**4.79**	**6.93**
Manganese	mg/L	-	-	**0.0939**	**0.0962**	**0.0538**	**0.0243**	**0.0178**	**0.0181**	**0.026**	**0.0227**	**0.102**
Manganese (dissolved)	mg/L	-	-	**0.0855**	**0.0962**	**0.0358**	0.0088 J	0.0285 J	0.0115 J	**0.0113**	**0.012**	**0.0133**
Mercury	mg/L	-	-	0.00020 U	0.00020 U	0.00003 J	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00005 J

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

Location ID:		MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	
Sample Name:		GW-021611-DJB-218	GW-051711-DJB-001	GW-070611-DJB-101	GW-070611-DJB-102	GW-101111-SAG-004	GW-042412-BCW-102	GW-102912-BCW-105	GW-041613-EAH-101	GW-013926-102413-DJB-102	GW-013926-102413-DJB-103	GW-013926
Sample Date:		2/16/2011	5/17/2011	7/6/2011	7/6/2011	10/11/2011	4/24/2012	10/29/2012	4/16/2013	10/24/2013	10/24/2013	4/
Performance Event:		Pre-injection	1st Post-injection	2nd Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post-injection	7th Post-injection	8th P
Parameters	**Units**				Duplicate						Duplicate	
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.021 U	0.021 U	(
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L											
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
Acetone	ug/L	50 U	50 U	50 U	50 U	50 U	4.0 J	25.0 U	25.0 U	10 J	20 U	
Benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.31 J	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.2 J	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	5.0 U	3.2 J	5.0 U	3.1 J	5.0 U	2.3 J	10.0 U	2.0 J	1.0 U	1.0 U	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**71**	**54**	**77**	**79**	**64**	**42**	**29.3**	**47.1**	**40**	**37**	
Toluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	5.0 U	5.0 U	1.5 J	1.7 J	5.0 U	0.98 J	10.0 U	0.73 J	1.0 U	1.0 U	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	5.0 U	5.0 U	
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Metals (Totals)												
Aluminum	mg/L	-	**6.04**	**3.48**	**3.18**	**0.810**	**1.67**	**1.16**	**2.52**	0.399 J	0.223 J	
Antimony	mg/L	-	0.0020 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	(
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0036 J	0.003 J	0.004 J	0.005 U	0.005 U	(
Barium	mg/L	0.198	0.230	0.257	0.263	0.247	0.231	0.226	0.176 J	0.225	0.217	
Beryllium	mg/L	-	0.0005 J	0.0004 J	0.0004 J	0.0003 J	0.0100 U	0.001 U	0.001 U	0.000237 J	0.000276 J	(
Cadmium	mg/L	0.0003 J	0.0016 J	0.0006 J	0.0006 J	-	0.0050 U	0.00058 J	0.0014 J	0.00068 J	0.000728	0
Cadmium (dissolved)	mg/L	0.0006 J	-	-	-	0.0010 J	-	-	-	-	-	
Calcium	mg/L	-	1.79	1.49	1.57	1.47	1.36	1.34	1.56	1.35	1.29	
Chromium	mg/L	0.0017 J	0.0018 J	0.0012 J	0.0012 J	0.0010 J	0.0100 U	0.01 U	0.01 U	0.005 U	0.005 U	(
Cobalt	mg/L	-	0.0401	0.0379	0.0400	0.0407	0.037	0.0346	0.0399	0.031	0.0284	
Copper	mg/L	0.0010 J	0.0019 J	0.0011 J	0.0100 U	0.0009 J	0.0100 U	0.025 U	0.025 U	0.000265 J	0.000296 J	(
Iron	mg/L	-	**2.79**	**2.06**	**2.11**	**1.02**	**1.48**	**0.796**	**2.37**	**0.196**	**0.196**	
Iron (dissolved)	mg/L	-	**0.620**	**0.169**	**0.188**	0.0414 J	**0.147**	0.0171 J	**0.055**	0.0457 J	0.0548 J	
Lead	mg/L	0.0100 U	0.0136	0.0100	0.0094 J	0.0100 U	0.0068 J	0.005 U	0.007	0.00183	0.00177	(
Magnesium	mg/L	-	3.61	3.67	3.86	3.78	3.47	3.35	3.24	3.15	3.03	
Manganese	mg/L	-	**1.53**	**1.22**	**1.29**	**1.32**	**1.21**	**1.08**	**1.74**	**0.965**	**0.883**	
Manganese (dissolved)	mg/L	-	**1.58**	**1.22**	**1.39**	**1.31**	1.33 J	**1.01**	**1.4**	**0.942**	**1.02**	
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00020 U	0.00020 U	0.

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
Sample Location:		MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
Sample ID:		GW-021110-EAH-023	GW-101211-SAG-009	GW-042512-AWY-005	GW-102412-DJB-001	GW-041713-EAH-102	GW-013926-102413-DJB-106	GW-013926-050114-DJB-010
Sample Date:		2/11/2011	10/12/2011	4/25/2012	10/24/2012	4/17/2013	10/24/2013	5/1/2014
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	90	260	200	74.4	54.9	54	29
1,1,2,2-Tetrachloroethane	ug/L	11	4.0 J	6.5	6.4 J	11.8	1.4	1.0 U
1,1,2-Trichloroethane	ug/L	5.4	6.6	6.9	5.6 J	7.6 J	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	69	84	79	45.8	33.1	23	7.0
1,1-Dichloroethene	ug/L	15	21	18	8.5 J	6.1 J	4.9	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	0.64 J	1.4 J	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	4.2 J	1.8 J	1.9 J	1.5 J	2.5 J	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	6.0	2.7 J	3.6 J	3.1 J	3.6 J	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	2.4 J	1.2 J	0.98 J	0.74 J	1.4 J	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	3.0 J	1.3 J	1.3 J	0.92 J	1.5 J	1.0 U	1.0 U
1,4-Dioxane	ug/L		-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	50 U	10.0 U	10.0 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	10.6 J	25.0 U	20 U	20 U
Benzene	ug/L	11	4.6 J	5.6	3.7 J	5.9 J	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	10	3.7 J	4.6 J	3.6 J	6.4 J	1.0 U	1.0 U
Chloroethane	ug/L	5.6 J	2.8 J	4.1 J	4.6 J	4.2 J	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	7.0	5.0 J	6.2	3.3 J	2.7 J	1.0	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	310	130	190	129	164	21	5.4
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	1.4 J	1.7 J	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.45 J	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	170	440	450	133	121	190	98
Toluene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.28 J	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.6	5.0 U	3.4 J	3.0 J	3.1 J	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	49	99	110	41.9	63.5	31	19
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	98	25	36	26.7	30.1	2.2	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-3 GW-021110-EAH-023 2/11/2011	MW-3 GW-101211-SAG-009 10/12/2011	MW-3 GW-042512-AWY-005 4/25/2012	MW-3 GW-102412-DJB-001 10/24/2012	MW-3 GW-041713-EAH-102 4/17/2013	MW-3 GW-013926-102413-DJB-106 10/24/2013	MW-3 GW-013926-050114-DJB-010 5/1/2014
Metals								
Arsenic	mg/L	-	0.0500 U	0.0500 U	0.01 U	0.0034 J	0.00121 J	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	-	-	-	-
Barium	mg/L	-	0.242	0.249	0.201	0.358	0.178	0.17
Barium (dissolved)	mg/L	-	-	-	-	-	-	-
Cadmium	mg/L	-	0.0050 U	0.0050 U	0.005 U	0.005 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	-
Chromium	mg/L	-	0.0011 J	0.0012 J	0.01 U	0.0032 J	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-	-
Copper	mg/L	-	0.0100 U	0.0100 U	0.0036 J	0.0021 J	0.000559 J	0.002 U
Copper (dissolved)	mg/L	-	-	-	-	-	-	-
Iron	mg/L	17.3	12.9	9.11	7.37	13.8	3.16	3.99
Iron (dissolved)	mg/L	12.9	-	-	-	-	-	-
Lead	mg/L	-	0.0100 U	0.0100 U	0.005 U	0.005 U	0.000199 J	0.00562
Lead (dissolved)	mg/L	-	-	-	-	-	-	-
Manganese	mg/L	10.9 J	9.35	5.63	4.75	4.22	7.42	8.04
Manganese (dissolved)	mg/L	10.0 J	-	-	-	-	-	-
Selenium	mg/L	-	0.0083 J	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	-	-	-	-		-	-
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9 U	1.2 J	4.1 J	9 U	9 U
Ethene	ug/L	7 U	7 U	7 U	3.6 J	7.7	7 U	7 U
Methane	ug/L	1400	99	85	90.5	315	5	4 U
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	42.9	27.8	45.2	44.5	43.8	45.1	27.3
Ammonia	mg/L	-	0.188 J	0.200 U	0.15 J	0.10 U	0.101	0.095
Chloride	mg/L	58	44	38	-	37	22	14
Ferrous iron	mg/L	12.6	-	-	26	-	-	-
Nitrate (as N)	mg/L	0.25 U	2.5 U	0.057 J	0.25 U	0.25 UJ	4.1	4.0
Orthophosphate	mg/L	-	0.0100 U	0.0383	0.36	0.25 U	0.00376 J	0.0100 U
Sulfate	mg/L	18	9.6 J	3.1	3.1	1.6	4.8	18
Total organic carbon (TOC)	mg/L	4.12 U	4.83	3.35	9.7	14.1	6.40	4.77
Field Parameters								
pH	S.U	5.32	5.69	5.32	5.94	5.68	4.95	5.81
DO	mg/L	0.52	0.68	0.65	2.55	1.31	0.0	0.83
ORP	mv	117	90	61	83	67	242	150

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample ID:		GW-013926-041316-MRB-010	GW-020911-DJB-208	GW-101211-DJB-107	GW-042612-AWY-013	GW-102512-DJB-007	GW-041713-DJB-203	GW-013926-102313-SAG-002
Sample Date:		4/13/2016	2/9/2011	10/12/2011	4/26/2012	10/25/2012	4/17/2013	10/23/2013
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	24	5.0 U	5.0 U	5.0 U	1.3 J	10.0 U	1.7
1,1,2,2-Tetrachloroethane	ug/L	2.0	5.0 U	5.0 U	5.0 U	4.0 J	10.0 U	7.2
1,1,2-Trichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.6	4.9 J	4.0 J	1.7 J	23.9	2.3 J	34
1,1-Dichloroethene	ug/L	1.7 J	3.1 J	3.0 J	1.5 J	12.0 J	1.3 J	16
1,2,4-Trichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	0.86 J
1,2-Dichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	1.5 J	10.0 U	2.2
1,2-Dichloropropane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	0.96 J
1,4-Dioxane	ug/L	150 U	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	50 U	50 U	50 U	20.0 U	10.0 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	20.0 U	10.0 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10 U	20.0 U	10.0 U	10 U
Acetone	ug/L	20 U	50 U	50 U	50 U	50.0 U	25.0 U	20 U
Benzene	ug/L	1.0 U	5.0 U	0.41 J	5.0 U	5.4 J	0.26 J	16
Bromodichloromethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Bromoform	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	0.39 J
Chloroethane	ug/L	1.0 U	10 U	10 U	10 U	9.4 J	10.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	0.97 J	5.0 U	5.0 U	5.0 U	3.8 J	10.0 U	5.9
Chloromethane (Methyl chloride)	ug/L	1.0 U	10 U	10 U	10 U	20.0 U	10.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	12	33	30	8.8	208	14.9	270
cis-1,3-Dichloropropene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	10 U	10 U	10 U	20.0 U	10.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	2.3 J	10.0 U	5.0 U
Styrene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Tetrachloroethene	ug/L	83	11	7.5	4.8 J	35.7	6.4 J	66
Toluene	ug/L	1.0 U	5.0 U	31	5.0 U	20.0 U	10.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	0.75 J
trans-1,3-Dichloropropene	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Trichloroethene	ug/L	15	22	19	8.3	104	11.5	180
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	10 U	10 U	10 U	3.9 J	0.35 J	6.2
Vinyl chloride	ug/L	1.0 U	0.96 J	2.1	0.83 J	2.1 J	10.0 U	2.6

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample Location:		MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample ID:		GW-013926-041316-MRB-010	GW-020911-DJB-208	GW-101211-DJB-107	GW-042612-AWY-013	GW-102512-DJB-007	GW-041713-DJB-203	GW-013926-102313-SAG-002
Sample Date:		4/13/2016	2/9/2011	10/12/2011	4/26/2012	10/25/2012	4/17/2013	10/23/2013
Metals								
Arsenic	mg/L	0.00235 J	0.0500 U	0.0500 U	0.0500 U	0.005 U	0.01 U	0.005 U
Arsenic (dissolved)	mg/L	-	0.0500 U	-	-	-	-	-
Barium	mg/L	0.278	0.171	0.179	0.115	0.194	0.153 J	0.165
Barium (dissolved)	mg/L	-	0.148	-	-	-	-	-
Cadmium	mg/L	0.000496 J	0.0050 U	0.0050 U	0.0050 U	0.001 U	0.005 U	0.000219 J
Cadmium (dissolved)	mg/L	-	0.0050 U	-	-	-	-	-
Chromium	mg/L	0.005 U	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.01 U	0.005 U
Chromium Total (dissolved)	mg/L	-	0.0100 U	-	-	-	-	-
Copper	mg/L	0.00236	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.025 U	0.000388 J
Copper (dissolved)	mg/L	-	0.0100 U	-	-	-	-	-
Iron	mg/L	6.69	0.157	0.100 U	0.0427 J	0.05 U	0.039 J	0.1 U
Iron (dissolved)	mg/L	--	0.100 U	-	-	-	-	-
Lead	mg/L	0.00102	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.005 U	0.001 U
Lead (dissolved)	mg/L	-	0.0100 U	-	-	-	-	-
Manganese	mg/L	--	2.51	2.81	1.75	3.89	1.83	3.71
Manganese (dissolved)	mg/L	-	2.26	-	-	-	-	-
Selenium	mg/L	0.000572 J	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U
Selenium (dissolved)	mg/L		0.0200 U	-	-	-		-
Dissolved Gas								
Ethane	ug/L	9.0 U	9 U	9 U	9 U	6.2 U	6.2 U	9 U
Ethene	ug/L	7.0 U	7 U	7 U	7 U	6.2 U	6.2 U	7 U
Methane	ug/L	4.0 U	4 U	21	180	49.6	10.2	200
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	22.0	37.9	34.1	28.8	41.0	29.0	45.5
Ammonia	mg/L	0.020 U	-	0.056 J	0.200 U	0.10 U	0.10 U	0.041
Chloride	mg/L	18	8.5	8.7	5.9	-	5.7	17
Ferrous iron	mg/L	-	0.100 UJ	-	-	14	-	-
Nitrate (as N)	mg/L	6.1	6.8	9.4	4.0	5.6 J	7.6 J	3.2
Orthophosphate	mg/L	0.00986 J	-	0.0389	0.0349	0.25 U	0.25 U	0.0313
Sulfate	mg/L	7.7	11	15	9.4	13	10	9.1
Total organic carbon (TOC)	mg/L	4.72	5.00 U	2.89	0.984 J	8.0 J	6.1	0.621 J
Field Parameters								
pH	S.U	5.39	4.96	5.63	5.16	5.63	5.84	4.89
DO	mg/L	2.92	2.5	0.36	0.95	0.0	0.00	0.63
ORP	mv	275	330	101	210	206	266	318

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-4	MW-4	MW-11	MW-11	MW-11	MW-11	MW-11
Sample ID:		GW-013926-102915-DJB-108	GW-013926-041416-SAG-110	GW-021011-DJB-210	GW-101211-SAG-006	GW-042512-AWY-007	GW-102912-DJB-009	GW-041713-EAH-103
Sample Date:		10/29/2015	4/14/2016	2/10/2011	10/12/2011	4/25/2012	10/29/2012	4/17/2013
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.4	3.5	4.4 J	3.4 J	1.8 J	1.2 J	1.0 J
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1-Dichloroethane	ug/L	6.9	9.6	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1-Dichloroethene	ug/L	3.7	5.2	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,4-Dioxane	ug/L	150 U	150 U	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	50 U	50 U	50 U	10.0 U	10.0 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
Acetone	ug/L	20 U	20 U	50 U	50 U	50 U	25.0 U	25.0 U
Benzene	ug/L	1.4	2.9	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromoform	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chloroethane	ug/L	1.0 U	1.0 U	10 U	10 U	10 U	10.0 U	10.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.8	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	10 U	10 U	10 U	10.0 U	10.0 U
cis-1,2-Dichloroethene	ug/L	55	79	14	9.6	8.6	7.4 J	7.9 J
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	10 U	10 U	10 U	10.0 U	10.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Styrene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Tetrachloroethene	ug/L	16	23	16	7.2	17	13.7	9.7 J
Toluene	ug/L	1.0 U	1.0 U	41	5.0 U	5.0 U	10.0 U	10.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Trichloroethene	ug/L	42	72	34	19	25	15.9	18.5
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	2.1 J	10 U	10 U	10 U	10.0 U	10.0 U
Vinyl chloride	ug/L	1.0 U	1.5	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-4	MW-4	MW-11	MW-11	MW-11	MW-11	MW-11
Sample Location:		MW-4	MW-4	MW-11	MW-11	MW-11	MW-11	MW-11
Sample ID:		GW-013926-102915-DJB-108	GW-013926-041416-SAG-110	GW-021011-DJB-210	GW-101211-SAG-006	GW-042512-AWY-007	GW-102912-DJB-009	GW-041713-EAH-103
Sample Date:		10/29/2015	4/14/2016	2/10/2011	10/12/2011	4/25/2012	10/29/2012	4/17/2013
Metals								
Arsenic	mg/L	0.005 U	0.000468 J	0.0500 U	0.0500 U	0.0500 U	0.01 U	0.01 U
Arsenic (dissolved)	mg/L	--	-	0.0500 U	-	-	-	-
Barium	mg/L	0.173	0.171	0.119	0.110	0.107	0.0915 J	0.103 J
Barium (dissolved)	mg/L	--	-	0.112	-	-	-	-
Cadmium	mg/L	0.000165 J	0.0007 U	0.0005 J	0.0002 J	0.0004 J	0.005 U	0.005 U
Cadmium (dissolved)	mg/L	--	-	0.0050 U	-	-	-	-
Chromium	mg/L	0.000486 J	0.005 U	0.0100 U	0.0100 U	0.0100 U	0.01 U	0.01 U
Chromium Total (dissolved)	mg/L	--	-	0.0100 U	-	-	-	-
Copper	mg/L	0.00181 J	0.002 U	0.0100 U	0.0100 U	0.0100 U	0.025 U	0.025 U
Copper (dissolved)	mg/L	--	-	0.0100 U	-	-	-	-
Iron	mg/L	0.177	0.1 U	0.117	0.100 U	0.0431 J	0.47	0.706
Iron (dissolved)	mg/L	--	--	0.100 U	-	-	-	-
Lead	mg/L	0.000552 J	0.000144 J	0.0100 U	0.0014 J	0.0100 U	0.005 U	0.005 U
Lead (dissolved)	mg/L	--	-	0.0100 U	-	-	-	-
Manganese	mg/L	3.28 J	--	1.03	0.867	0.852	0.87	0.895
Manganese (dissolved)	mg/L	--	-	1.02	-	-	-	-
Selenium	mg/L	0.00111 J	0.000875 J	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U
Selenium (dissolved)	mg/L	--		0.0200 U	-	-	-	
Dissolved Gas								
Ethane	ug/L	9.0 U	9.0 U	9 U	9 U	9 U	6.2 U	6.2 U
Ethene	ug/L	7.0 U	7.0 U	7 U	7 U	7 U	6.2 U	6.2 U
Methane	ug/L	11	160	4 U	4 U	4 U	14.4	31.0
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	50.0	36.0	8.7 J	8.9 J	10.0 U	6.7	7.5
Ammonia	mg/L	0.041	0.020 U	0.200 U	0.030 J	0.200 U	0.10 U	0.10 U
Chloride	mg/L	9.0	12	16	12	12	-	13
Ferrous iron	mg/L	--	-	0.100 UJ	-	-	11.8475	-
Nitrate (as N)	mg/L	4.8	4.0	0.65	0.47	0.45	0.45	0.40 J
Orthophosphate	mg/L	0.0315	0.0240	0.00584 J	0.0100 U	0.0118 U	0.25 U	0.25 U
Sulfate	mg/L	13	13	1.0 U	1.0 U	1.0 U	1 U	1.0 U
Total organic carbon (TOC)	mg/L	1.00 U	2.32	3.36	3.43	4.51	3.0	5.4
Field Parameters								
pH	S.U	5.55	5.36	5.21	5.29	4.88	5.55	4.57
DO	mg/L	0	4.10	9.02	4.77	4.03	3.47	1.82
ORP	mv	233	293	325	305	206	171	248

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-1
Sample ID:		GW-013926-031815-SAG-009	GW-013926-102815-SAG-008	GW-013926-041316-MRB-006	GW-021511-DJB-214	GW-021511-DJB-215	GW-101211-SAG-010	GW-042412-E
Sample Date:		3/18/2015	10/28/2015	4/13/2016	2/15/2011	2/15/2011	10/12/2011	4/24/20
Parameters	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.5 J	1.5 J
1,1,2,2-Tetrachloroethane	ug/L	2.0	1.0 U	3.0	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	3.2 J	3.3 J	3.0 J	2.7 J
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	1.7 J	1.8 J
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	ug/L	-	150 U	150 U	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	50 U	50 U	16 J	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	50 U	50 U	50 U	50 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U	1.7 J	10 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	13	6.4	8.2	180	190	170	200
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	12	7.9	11	62	59	50	36
Toluene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	1.5 J
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	35	14	28	390	390	400	390
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	0.96 J
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	2.1	2.1	1.6 J	2.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-1
Sample Location:		MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-1
Sample ID:		GW-013926-031815-SAG-009	GW-013926-102815-SAG-008	GW-013926-041316-MRB-006	GW-021511-DJB-214	GW-021511-DJB-215	GW-101211-SAG-010	GW-042412-E
Sample Date:		3/18/2015	10/28/2015	4/13/2016	2/15/2011	2/15/2011	10/12/2011	4/24/20
Metals								
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	-	-	0.0500 U	0.0035
Arsenic (dissolved)	mg/L	-	--	-	-	-	-	-
Barium	mg/L	0.078	0.178	0.0655	-	-	0.108	0.095
Barium (dissolved)	mg/L	-	--	-	-	-	-	-
Cadmium	mg/L	0.000447 J	0.000616 J	0.000286 J	-	-	0.0050 U	0.0050
Cadmium (dissolved)	mg/L	-	--	-	-	-	-	-
Chromium	mg/L	0.000342 J	0.00526	0.005 U	-	-	0.0026 J	0.0100
Chromium Total (dissolved)	mg/L	-	--	-	-	-	-	-
Copper	mg/L	0.00128 J	0.00926	0.00283	-	-	0.0011 J	0.0100
Copper (dissolved)	mg/L	-	--	-	-	-	-	-
Iron	mg/L	0.154	5.1	0.308	0.156	0.100 U	0.276 U	0.235
Iron (dissolved)	mg/L	--	--	--	0.100 U	0.100 U	-	-
Lead	mg/L	0.001 U	0.0063	0.000907 J	-	-	0.0100 U	0.0100
Lead (dissolved)	mg/L	-	--	-	-	-	-	-
Manganese	mg/L	0.912	1.82 J	--	0.184	0.186	0.134	0.073
Manganese (dissolved)	mg/L	--	--	-	0.178	0.180	-	-
Selenium	mg/L	0.005 U	0.005 U	0.000368 J	-	-	0.0200 U	0.0200
Selenium (dissolved)	mg/L		--		-	-	-	-
Dissolved Gas								
Ethane	ug/L	9 U	9.0 U	9.0 U	9 U	9 U	9 U	9 U
Ethene	ug/L	7 U	7.0 U	7.0 U	7 U	7 U	7 U	7 U
Methane	ug/L	15	9.6	31	4 U	4 U	4 U	4 U
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	13.0	17.0	5.00	15.5	14.5	11.6	11.5
Ammonia	mg/L	0.020 U	0.023	0.211	-	-	0.049 J	0.200
Chloride	mg/L	8.6	7.7	7.1	10	10	8.7	8.6
Ferrous iron	mg/L	-	--	-	0.100 U	0.100 U	-	-
Nitrate (as N)	mg/L	0.34	0.28	0.26	0.75	0.76	0.74	0.73
Orthophosphate	mg/L	0.00682 J	0.0126 U	0.00856 J	-	-	0.0219	0.0487
Sulfate	mg/L	9.5	2.8	0.39 J	2.3	3.8	2.1	2.0
Total organic carbon (TOC)	mg/L	5.00 U	3.16	7.48	5.00 U	1.00 U	2.87	0.699
Field Parameters								
pH	S.U	5.32	5.64	4.57	4.67	4.67	5.42	5.37
DO	mg/L	3.41	3.84	7.0	3.23	3.23	3.95	6.0
ORP	mv	211	197	261	356	356	206	238

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-12	MW-12	MW-12	MW-12	MW-14	MW-14	M
Sample ID:		GW-013926-101514-DJB-108	GW-013926-031915-SAG-012	GW-013926-102815-DJB-106	GW-013926-041316-SAG-107	GW-020911-SAG-119	GW-101311-SAG-012	GW-042
Sample Date:		10/15/2014	3/19/2015	10/28/2015	4/13/2016	2/9/2011	10/13/2011	4/2
Parameters	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	5.0 U	5.0 U	5
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,4-Dioxane	ug/L	-	-	150 U	150 U	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	50 U	50 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	20 U	20 U	20 U	20 U	50 U	50 U	
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	
cis-1,2-Dichloroethene	ug/L	38	30	25	9.4	5.0 U	5.0 U	5
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Tetrachloroethene	ug/L	59	57	34	47	5.0 U	5.0 U	5
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Trichloroethene	ug/L	98	95	68	40	5.0 U	5.0 U	5
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-12 GW-013926-101514-DJB-108 10/15/2014	MW-12 GW-013926-031915-SAG-012 3/19/2015	MW-12 GW-013926-102815-DJB-106 10/28/2015	MW-12 GW-013926-041316-SAG-107 4/13/2016	MW-14 GW-020911-SAG-119 2/9/2011	MW-14 GW-101311-SAG-012 10/13/2011	M GW-042 4/2
Metals								
Arsenic	mg/L	0.005 U	0.000185 J	0.005 U	0.000638 J	0.0500 U	0.0500 U	0.(
Arsenic (dissolved)	mg/L	-	-	--	-	0.0500 U	-	
Barium	mg/L	0.112	0.0943	0.106	0.171	0.0443	0.0487	0
Barium (dissolved)	mg/L	-	-	--	-	0.0383	-	
Cadmium	mg/L	0.0007 U	0.0007 U	0.000146 J	0.000254 J	0.0050 U	0.0050 U	0.(
Cadmium (dissolved)	mg/L	-	-	--	-	0.0050 U	-	
Chromium	mg/L	0.00514	0.00538	0.00298 J	0.00529	0.0100 U	0.0015 J	0.
Chromium Total (dissolved)	mg/L	-	-	--	-	0.0100 U	-	
Copper	mg/L	0.005 U	0.000629 J	0.000843 J	0.002 U	0.0009 J	0.0100 U	0.
Copper (dissolved)	mg/L	-	-	--	-	0.0100 U	-	
Iron	mg/L	0.164	0.0121 J	0.144	0.0518 J	0.332	1.21	
Iron (dissolved)	mg/L	-	--	--	--	0.100 U	-	
Lead	mg/L	0.001 U	0.001 U	0.000376 J	0.000278 J	0.0100 U	0.0008 J	0.
Lead (dissolved)	mg/L	-	-	--	-	0.0100 U	-	
Manganese	mg/L	0.109	0.0712	0.0613 J	--	0.0039 J	0.0090 J	0
Manganese (dissolved)	mg/L	-	--	--	-	0.0063 J	-	
Selenium	mg/L	0.005 UJ	0.005 U	0.00155 J	0.00122 J	0.0200 U	0.0200 U	0.(
Selenium (dissolved)	mg/L			--		0.0200 U	-	
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9 U	9 U	
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7 U	7 U	
Methane	ug/L	4 U	4 U	5.0 U	1.8 J	7	4 U	
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	15.9	9.00	9.00	7.00	11.9	10.0 U	
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U	-	0.020 J	0.
Chloride	mg/L	12	8.8	7.9	14	5.8	2.3	
Ferrous iron	mg/L	-	-	--	-	0.100 UJ	-	
Nitrate (as N)	mg/L	1.3	1.3	1.2	3.2	1.3	1.4	
Orthophosphate	mg/L	0.0363	0.0268	0.0279	0.0208	-	0.0171	0
Sulfate	mg/L	2.3	2.8	2.7	2.0	14	16	
Total organic carbon (TOC)	mg/L	1.31	1.00 U	1.00 U	1.46	1.00 U	0.565 J	1
Field Parameters								
pH	S.U	5.44	5.15	4.5	4.64	4.94	5.45	
DO	mg/L	2.78	2.23	2.66	0.0	6.5	5.14	
ORP	mv	218	229	324	375	455	290	

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
Sample ID:		GW-013926-042414-DJB-006	GW-013926-101514-DJB-104	GW-013926-101514-DJB-105	GW-013926-031715-DJB-101	GW-013926-102815-DJB-103	GW-013926-041316-S
Sample Date:		4/24/2014	10/15/2014	10/15/2014	3/17/2015	10/28/2015	4/13/2016
Parameters	Units	Duplicate		Duplicate			
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.021 U	0.021 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

	Sample Location:	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
	Sample ID:	GW-013926-042414-DJB-006	GW-013926-101514-DJB-104	GW-013926-101514-DJB-105	GW-013926-031715-DJB-101	GW-013926-102815-DJB-103	GW-013926-041316-S
	Sample Date:	4/24/2014	10/15/2014	10/15/2014	3/17/2015	10/28/2015	4/13/2016
Parameters	Units	Duplicate		Duplicate			
Metals							
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.00203 J	0.000421 J
Arsenic (dissolved)	mg/L	-	-	-	-	--	-
Barium	mg/L	0.0391	0.0434	0.0401	0.0437	0.0446	0.0488
Barium (dissolved)	mg/L	-	-	-	-	--	-
Cadmium	mg/L	0.0007 U	0.0007 U	0.0007 U	0.0007 U	0.000365 J	0.000188 J
Cadmium (dissolved)	mg/L	-	-	-	-	--	-
Chromium	mg/L	0.005 U	0.00115 J	0.000706 J	0.000522 J	0.00123 J	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	-	--	-
Copper	mg/L	0.002 U	0.005 U	0.005 U	0.0032	0.00167 J	0.002 U
Copper (dissolved)	mg/L	-	-	-	-	--	-
Iron	mg/L	0.145	0.705 J	0.267 J	0.2	0.622	0.465
Iron (dissolved)	mg/L	-	-	-	--	--	--
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.000313 J	0.000864 J	0.000514 J
Lead (dissolved)	mg/L	-	-	-	-	--	-
Manganese	mg/L	0.005 U	0.00598	0.005 U	0.005 U	0.00566 J	--
Manganese (dissolved)	mg/L	-	-	-	--	--	-
Selenium	mg/L	0.005 U	0.000779 J	0.000742 J	0.000786 J	0.00138 J	0.00153 J
Selenium (dissolved)	mg/L	-				--	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9 U	9 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7 U	7.0 U	7.0 U
Methane	ug/L	4 U	4 U	4 U	4 U	4.0 U	4.0 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	10.0 U	18.8	19.6	17.0	17.0	21.0
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	2.4	2.1	2.1	1.8	2.1	2.5
Ferrous iron	mg/L	-	-	-	-	--	-
Nitrate (as N)	mg/L	1.5	1.6	1.5	1.5	1.5	1.7
Orthophosphate	mg/L	0.0228	0.0175	0.0163	0.0159	0.0160 U	0.0103
Sulfate	mg/L	15	15	13	14	15	15
Total organic carbon (TOC)	mg/L	1.52	0.567 J	0.411 J	0.716 J	1.00 U	0.961 J
Field Parameters							
pH	S.U	-	5.90	-	5.53	-	5.1
DO	mg/L	-	6.39	-	5.72	-	1.27
ORP	mv	-	193	-	162	-	309

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-35	MW-35	MW-35	MW-35	MW-35	MW-35
Sample ID:		GW-013926-102513-DJB-107	GW-013926-102513-DJB-108	GW-013926-050114-DWH-109	GW-013926-101514-SAG-007	GW-013926-031815-SAG-008	GW-013926-10281
Sample Date:		10/25/2013	10/25/2013	5/1/2014	10/15/2014	3/18/2015	10/28/201
Parameters	Units		Duplicate				
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.3	1.4	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	40	45	14	20	18	15
1,1,2-Trichloroethane	ug/L	1.3	1.6	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	11	13	3.2	3.5	2.8	2.3
1,1-Dichloroethene	ug/L	5.2	5.9	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.021 U	0.020 U	0.020 U	0.020 U	0.021 U
1,2-Dichlorobenzene	ug/L	1.2	1.4	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	2.8	3.1	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	4.0	4.1	1.8	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	20	22	4.8	1.1	0.40 J	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.5	1.7	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	4.7	5.8	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	2.6	3.0	1.3	1.1	0.83 J	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	76	86	28	44	44	45
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	29	31	37	12	8.8	6.2
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	0.87 J	1.1 J	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	240	240	140	130	120	110
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	6.8	8.2	1.0 U	1.0 U	1.7	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

	Sample Location:	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35
	Sample ID:	GW-013926-102513-DJB-107	GW-013926-102513-DJB-108	GW-013926-050114-DWH-109	GW-013926-101514-SAG-007	GW-013926-031815-SAG-008	GW-013926-10281
	Sample Date:	10/25/2013	10/25/2013	5/1/2014	10/15/2014	3/18/2015	10/28/201
Parameters	Units		Duplicate				
Metals							
Arsenic	mg/L	0.00052 J	0.000587 J	0.005 U	0.005 U	0.00041 J	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	-	-	--
Barium	mg/L	0.319	0.33	0.295	0.284	0.272	0.249
Barium (dissolved)	mg/L	-	-	-	-	-	--
Cadmium	mg/L	0.000369 J	0.000422 J	0.0007 U	0.000982	0.000238 J	0.000293
Cadmium (dissolved)	mg/L	-	-	-	-	-	--
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.000812 J	0.000889 J	0.00142 J
Chromium Total (dissolved)	mg/L	-	-	-	-	-	--
Copper	mg/L	0.000906 J	0.00134 J	0.002 U	0.00285	0.00155 J	0.00355
Copper (dissolved)	mg/L	-	-	-	-	-	--
Iron	mg/L	0.0666 J	0.0886 J	0.1 U	0.234	0.342	0.646
Iron (dissolved)	mg/L	-	-	-	-	--	--
Lead	mg/L	0.000318 J	0.000329 J	0.001 U	0.000515 J	0.001 U	0.00135
Lead (dissolved)	mg/L	-	-	-	-	-	--
Manganese	mg/L	0.397	0.463	0.501	0.412	0.386	0.36 J
Manganese (dissolved)	mg/L	-	-	-	-	--	--
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.00036 J	0.00043 J	0.00169 J
Selenium (dissolved)	mg/L	-	-	-			--
Dissolved Gas							
Ethane	ug/L	4 J	4 J	9 U	9 U	9 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7 U	7 U	7.0 U
Methane	ug/L	110	120	160	29	40	4.0 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	10.6	10.2	10.0 U	14.5	5.00	7.00
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	38	39	32	36	30	29
Ferrous iron	mg/L	-	-	-	-	-	--
Nitrate (as N)	mg/L	0.14 J	0.10 J	1.3	0.24 J	0.37	0.34
Orthophosphate	mg/L	0.0169	0.0190	0.0131	0.0113	0.0125	0.0136 U
Sulfate	mg/L	3.5 J	1.6 J	10	3.9	0.76 J	1.5
Total organic carbon (TOC)	mg/L	4.34	4.59	3.67	2.92	5.00 U	1.76
Field Parameters							
pH	S.U	4.31	4.31	4.39	4.89	4.68	5.06
DO	mg/L	0.0	0.0	0.98	3.19	0.45	0.87
ORP	mv	461	461	546	314	236	246

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-42	MW-42	MW-42	MW-42	MW-42	MW-42	MW-42
Sample ID:		GW-042612-BCW-107	GW-102512-DJB-004	GW-102512-DJB-005	GW-042213-DJB-206	GW-013926-102413-SAG-010	GW-013926-042514-DJB-009	GW-013926-101414-D
Sample Date:		4/26/2012	10/25/2012	10/25/2012	4/22/2013	10/24/2013	4/25/2014	10/14/2014
Parameters	Units			Duplicate				
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	11	50.0 U	6.6 J	11.1	7.4	5.4	3.8
1,1,2,2-Tetrachloroethane	ug/L	32	27.5 J	29.0 J	32.6	35	26	23
1,1,2-Trichloroethane	ug/L	2.9 J	2.3 J	2.7 J	3.5 J	2.7	2.4	1.0 U
1,1-Dichloroethane	ug/L	46	63.9	66.9	94.0	78	56	51
1,1-Dichloroethene	ug/L	45	64.8	66.6	147	82	65	66
1,2,4-Trichlorobenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	0.020 U	0.020 U	0.020 U	0.021 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	0.76 J	50.0 U	50.0 U	0.65 J	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	6.0	5.4 J	5.5 J	6.0 J	5.1	3.9	3.9
1,2-Dichloropropane	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 J	50.0 U	50.0 U	1.0 J	0.69 J	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	55.4	60.9	10.0 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	50.0 U	50.0 U	10.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	50.0 U	50.0 U	10.0 U	10 U	10 U	10 U
Acetone	ug/L	50 U	125 U	125 U	25.0 U	20 U	20 U	20 U
Benzene	ug/L	14	13.1 J	13.4 J	14.8	2.1	5.7	4.0
Bromodichloromethane	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	1.3 J	50.0 U	50.0 U	2.0 J	0.91 J	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	50.0 U	50.0 U	0.39 J	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.3 J	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	39	35.7 J	37.3 J	61.1	36	34	31
Chloromethane (Methyl chloride)	ug/L	10 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	620	646	696	819	550	540	480
cis-1,3-Dichloropropene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	50.0 U	50.0 U	0.93 J	1.1	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	50.0 U	50.0 U	6.6 J	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	1.9 J	1.7 J	10.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	7.0 J	7.0 J	4.0 J	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	160	69.0	71.3	170	100	170	110
Toluene	ug/L	0.40 J	50.0 U	50.0 U	0.26 J	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.4 J	50.0 U	50.0 U	1.8 J	1.4 J	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	540	364	378	691	410	540	430
Trichlorofluoromethane (CFC-11)	ug/L	3.4 J	2.6 J	2.7 J	5.0 J	5.2	3.4	3.2
Trifluorotrichloroethane (Freon 113)	ug/L	12	12.7 J	13.5 J	37.4	19	20	15
Vinyl chloride	ug/L	14 J	8.2 J	9.3 J	12.5	11	8.6	5.9

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-42 GW-042612-BCW-107 4/26/2012	MW-42 GW-102512-DJB-004 10/25/2012	MW-42 GW-102512-DJB-005 10/25/2012	MW-42 GW-042213-DJB-206 4/22/2013	MW-42 GW-013926-102413-SAG-010 10/24/2013	MW-42 GW-013926-042514-DJB-009 4/25/2014	MW-42 GW-013926-101414-D 10/14/2014
	Sample Location:	MW-42	MW-42	MW-42	MW-42	MW-42	MW-42	MW-42
	Sample ID:	GW-042612-BCW-107	GW-102512-DJB-004	GW-102512-DJB-005	GW-042213-DJB-206	GW-013926-102413-SAG-010	GW-013926-042514-DJB-009	GW-013926-101414-D
	Sample Date:	4/26/2012	10/25/2012	10/25/2012	4/22/2013	10/24/2013	4/25/2014	10/14/2014
				Duplicate				
Metals								
Arsenic	mg/L	0.0500 U	0.01 U	0.01 U	0.01 U	0.000276 J	0.005 U	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	-	-	-	-
Barium	mg/L	0.198	0.321	0.301	0.237	0.196	0.492	0.248
Barium (dissolved)	mg/L	-	-	-	-	-	-	-
Cadmium	mg/L	0.0050 U	0.005 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	-
Chromium	mg/L	0.0019 J	0.0112	0.0072 J	0.0052 J	0.00348 J	0.02 U	0.00119 J
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-	-
Copper	mg/L	0.0014 J	0.025 U	0.025 U	0.025 U	0.00157 J	0.00397	0.00214
Copper (dissolved)	mg/L	-	-	-	-	-	-	-
Iron	mg/L	1.44	6.16	4.8	3.04	2.04	12.5	0.623
Iron (dissolved)	mg/L	-	-	-	-	-	-	-
Lead	mg/L	0.0100 U	0.005 U	0.005 U	0.005 U	0.000832 J	0.00281	0.000311 J
Lead (dissolved)	mg/L	-	-	-	-	-	-	-
Manganese	mg/L	0.0741	0.15	0.139	0.075	0.0516	0.18	0.0302
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-
Selenium	mg/L	0.0200 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.000283 J
Selenium (dissolved)	mg/L	-	-	-		-	-	
[illegible]								
Ethane	ug/L	9 U	6.2 U	6.2 U	6.2 U	9 U	9 U	9 U
Ethene	ug/L	7 U	6.2 U	6.2 U	6.2 U	7 U	7 U	7 U
Methane	ug/L	48	44.2	40.0	149	8	34	30
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	53.5	40.4	48.7	27.9	55.6	51.5	52.5
Ammonia	mg/L	0.200 U	0.10 U	0.10 U	0.10 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	1.9	-	-	3.2	4.9	9.9	12
Ferrous iron	mg/L	-	2.4	2.3	-	-	-	-
Nitrate (as N)	mg/L	0.67	0.72 J	0.73 J	1.2	1.3	1.4	0.91
Orthophosphate	mg/L	0.179	0.25 U	0.25 U	0.26	0.157	0.158	0.146
Sulfate	mg/L	0.62 J	1.0 U	1.0 U	1.0 U	0.54 J	1.0 U	4.0 J
Total organic carbon (TOC)	mg/L	2.32	4.3 J	4.2 J	4.8	2.45	3.09	1.08
Field Parameters								
pH	S.U	5.76	6.28	6.28	6.38	5.9	6.14	5.97
DO	mg/L	0.02	6.09	6.09	0.00	2.05	5.92	0.63
ORP	mv	149	127	127	69	146	82	173

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		TW-2	TW-2	TW-2	TW-2	TW-2	TW-2	TW-2
Sample ID:		GW-020911-EAH-016	GW-101311-SAG-013	GW-042512-BCW-105	GW-102512-BCW-103	GW-042313-DJB-207	GW-013926-102413-SAG-008	GW-013926-042414-DJB-007
Sample Date:		2/9/2011	10/13/2011	4/25/2012	10/25/2012	4/23/2013	10/24/2013	4/24/2014
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl keton	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
Acetone	ug/L	50 U	50 U	22 J	25.0 U	25.0 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Toluene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	TW-2 GW-020911-EAH-016 2/9/2011	TW-2 GW-101311-SAG-013 10/13/2011	TW-2 GW-042512-BCW-105 4/25/2012	TW-2 GW-102512-BCW-103 10/25/2012	TW-2 GW-042313-DJB-207 4/23/2013	TW-2 GW-013926-102413-SAG-008 10/24/2013	TW-2 GW-013926-042414-DJB-007 4/24/2014
Metals								
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.01 U	0.01 U	0.00021 J	0.005 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	-	-
Barium	mg/L	0.389	0.208	0.342	0.237	0.119 J	0.0411	0.0228
Barium (dissolved)	mg/L	0.0227	-	-	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.005 U	0.005 U	0.000241 J	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	-	-
Chromium	mg/L	0.0416	0.0184	0.0074 J	0.0193	0.0084 J	0.000797 J	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	-	-
Copper	mg/L	0.0721	0.0187	0.0093 J	0.0132 J	0.0221 J	0.00179 J	0.002 U
Copper (dissolved)	mg/L	0.0011 J	-	-	-	-	-	-
Iron	mg/L	19.9	10.1	2.78	11.8	4	0.311	0.206
Iron (dissolved)	mg/L	0.0864 J	-	-	-	-	-	-
Lead	mg/L	0.0174	0.0056 J	0.0043 J	0.005 U	0.0063	0.000758 J	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	-	-
Manganese	mg/L	1.99	1.49	9.35	0.807	1.08	0.706	0.0679
Manganese (dissolved)	mg/L	0.638	-	-	-	-	-	-
Selenium	mg/L	0.0200 U	0.0200 U	0.0109 J	0.01 U	0.01 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-	-	-		-	-
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.2 U	9 U	9 U
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.2 U	7 U	7 U
Methane	ug/L	890	16	18	49.8	33.0	3 J	52
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	42.6	35.2	36.2	30.0	30.5	33.2	27.2
Ammonia	mg/L	-	0.012 J	0.200 U	0.10 U	0.10 U	0.020 U	0.020 U
Chloride	mg/L	1.9	2.2	1.8	-	1.6	1.6	1.9
Ferrous iron	mg/L	0.200 UJ	-	-	1.7	-	-	-
Nitrate (as N)	mg/L	0.62	0.72	0.74	0.80 J	0.91	0.69	0.87
Orthophosphate	mg/L	-	0.0908	0.104	0.25 U	0.25 U	0.111	0.0991
Sulfate	mg/L	2.8	2.3	2.4	2.4	2.3	2.3	4.0
Total organic carbon (TOC)	mg/L	1.00 U	0.733 J	3.50	1.3 J	1.0	2.93	1.00 U
Field Parameters								
pH	S.U	6.65	6.72	6.64	7.12	7.06	6.48	6.72
DO	mg/L	1.99	0.84	1.69	12.37	6.48	2.15	6.82
ORP	mv	210	224	115	187	141	224	106

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	M
Sample ID:		GW-020211-EAH-001	GW-101111-SAG-005	GW-042412-AWY-004	GW-103012-DJB-011	GW-042213-EAH-106	GW-042213-EAH-107	GW-013926-102413-DJB-105	GW-013926-042314-DJB-001	GW-013926
Sample Date:		2/2/2011	10/11/2011	4/24/2012	10/30/2012	4/22/2013	4/22/2013	10/24/2013	4/23/2014	10/
							Duplicate			
Parameters	**Units**									
Volatile Organic Compounds										
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	0.83 J	1.1 J	7.3 J	7.0 J	7.2	5.7	
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.78 J	0.75 J	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.57 J	0.31 J	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	0.48 J	0.27 J	0.74 J	10.0 U	0.68 J	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	7.2 J	10.0 U	10.0 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10 U	10 U	
Acetone	ug/L	17 J	11 J	5.8 J	109	25.0 U	25.0 U	20 U	20 U	
Benzene	ug/L	5.0 U	5.0 U	5.0 U	0.38 J	2.1 J	1.8 J	2.5	1.4	
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.31 J	0.29 J	0.46 J	1.0 U	
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	16	15	30	37.9	161	159	140	120	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1.4 J	1.5 J	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	14	1.8 J	2.1 J	1.5 J	9.8 J	9.4 J	16	9.5	
Toluene	ug/L	5.0 U	5.0 U	5.0 U	0.48 J	0.46 J	10.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	3.5 J	3.6 J	7.2	5.4 J	26.2	27.8	26	19	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	1.2 J	12.8	10.2	5.5	1.5	
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.90 J	10.0 U	1.0 U	1.0 U	
Metals										
Arsenic	mg/L	-	0.0500 U	0.0070 J	0.0049 J	0.01 U	0.01 U	0.0011 J	0.005 U	0.
Arsenic (dissolved)	mg/L	-	-		-	-	-	-	-	
Barium	mg/L	-	0.0154 J	0.0114 J	0.0648 J	0.0284 J	0.0196 J	0.0337	0.0257	
Barium (dissolved)	mg/L	-	-		-	-	-	-	-	
Cadmium	mg/L	-	0.0050 U	0.0050 U	0.005 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.
Cadmium (dissolved)	mg/L	-	-		-	-	-	-	-	
Chromium	mg/L	-	0.0011 J	0.0100 U	0.0042 J	0.01 U	0.01 U	0.005 U	0.005 U	0
Chromium Total (dissolved)	mg/L	-	-		-	-	-	-	-	
Copper	mg/L	-	0.0045 J	0.0100 U	0.0265	0.025 U	0.025 U	0.000969 J	0.002 U	0
Copper (dissolved)	mg/L	-	-		-	-	-	-	-	
Iron	mg/L	-	0.100 U	0.0631 J	2.04	2.3 J	0.181 J	0.073 J	0.1 U	
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	
Lead	mg/L	-	0.0100 U	0.0024 J	0.0042 J	0.005 U	0.005 U	0.001 U	0.001 U	0
Lead (dissolved)	mg/L	-	-		-	-	-	-	-	
Manganese	mg/L	-	0.0455	0.0239	0.496	0.0373 J	0.0086 J	0.0106	0.0096	(
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	
Selenium	mg/L	-	0.0200 U	0.0200 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.
Selenium (dissolved)	mg/L	-	-		-			-	-	
Dissolved Gas										
Ethane	ug/L	-	9 U	9 U	6.2 U	6.2 U	6.2 U	9 U	9 U	
Ethene	ug/L	-	7 U	7 U	1.6 J	0.91 J	6.2 U	7 U	7 U	
Methane	ug/L	-	33	33	37.6	18.5	11.5	3 J	21	
Wet Chemistry										

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

		Shallow Bedrock Unit								
Sample Location:		MW-10A[1]	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A	
Sample ID:		NOT SAMPLED	GW-042612-AWY-010	GW-042612-AWY-011	GW-102912-BCW-104	GW-041713-DJB-201	GW-013926-102313-SAG-003	GW-013926-050114-DJB-012	GW-013926-101614-DJB-109	GW-01
Sample Date:		10/11/11	4/26/2012	4/26/2012	10/29/2012	4/17/2013	10/23/2013	5/1/2014	10/16/2014	
				Duplicate						
Parameters	**Units**									
Volatile Organic Compounds										
1,1,1-Trichloroethane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	0.39 J	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L		5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.021 U	
1,2-Dichlorobenzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L		-	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L		50 U	50 U	10.0 U	10.0 U	10 U	10 U	10 U	
2-Hexanone	ug/L		10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L		10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	
Acetone	ug/L		50 U	50 U	25.0 U	25.0 U	20 U	20 U	20 U	
Benzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L		10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L		10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L		1.2 J	1.2 J	2.8 J	3.7 J	4.6	3.6	5.6	
cis-1,3-Dichloropropene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L		10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L		R	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L		5.0 U	5.0 U	10.0 U	0.71 J	1.4	1.0 U	1.0 U	
Toluene	ug/L		5.0 U	5.0 U	1.3 J	10.0 U	1.0 U	2.0	7.0	
trans-1,2-Dichloroethene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L		0.66 J	5.0 U	1.3 J	1.5 J	2.0	1.0 U	1.0 U	
Trichlorofluoromethane (CFC-11)	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L		10 U	10 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	
Vinyl chloride	ug/L		2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Metals										
Arsenic	mg/L		0.0039 J	0.0500 U	0.01 U	0.01 U	0.000897 J	0.005 U	0.00107 J	
Arsenic (dissolved)	mg/L				-	-	-	-	-	
Barium	mg/L		0.0395	0.0366	0.0155 J	0.0143 J	0.0115	0.0176	0.0143	
Barium (dissolved)	mg/L				-	-	-	-	-	
Cadmium	mg/L		0.0012 J	0.0050 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L				-	-	-	-	-	
Chromium	mg/L		0.0031 J	0.0007 J	0.01 U	0.0024 J	0.005 U	0.005 U	0.005 U	
Chromium Total (dissolved)	mg/L				-	-	-	-	-	
Copper	mg/L		0.0090 J	0.0076 J	0.025 U	0.025 U	0.002 U	0.002 U	0.0023	
Copper (dissolved)	mg/L				-	-	-	-	-	
Iron	mg/L		1.29	1.20	0.0737 J	0.0802 J	0.0089 J	0.158	0.0255 J	
Iron (dissolved)	mg/L		-	-	-	-	-	-	-	
Lead	mg/L		0.0839	0.0788	0.0041 J	0.005 U	0.000231 J	0.0106	0.00339	
Lead (dissolved)	mg/L				-	-	-	-	-	
Manganese	mg/L		0.677	0.623	0.0473	0.0515	0.00427 J	0.145	0.0422	
Manganese (dissolved)	mg/L		-	-	-	-	-	-	-	
Selenium	mg/L		0.0125 J	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	
Selenium (dissolved)	mg/L				-		-	-		
Dissolved Gas										
Ethane	ug/L		9 U	9 U	6.2 U	6.2 U	9 U	9 U	9 U	
Ethene	ug/L		7 U	7 U	6.2 U	6.2 U	7 U	7 U	7 U	
Methane	ug/L		2 J	3 J	6.6 U	35.9	4 U	4 U	4 U	
Wet Chemistry										

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	
Sample ID:		GW-101211-DJB-105	GW-101211-DJB-104	GW-042612-BLW-106	GW-102412-DJB-003	GW-041813-DJB-205	GW-013926-102413-SAG-009	GW-013926-042414-DJB-008	GW-013926-101514-DJB-107	GW-013926-031815-SAG-011	G
Sample Date:		10/12/2011	10/12/2011	4/26/2012	10/24/2012	4/18/2013	10/24/2013	4/24/2014	10/15/2014	3/18/2015	
		Duplicate									
Parameters	**Units**										
Volatile Organic Compounds											
1,1,1-Trichloroethane	ug/L	1.7 J	1.6 J	0.70 J	1.4 J	1.1 J	0.96 J	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	10	11	7.1	8.3 J	7.9 J	8.2	5.7	6.9	5.8	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	0.54 J	0.61 J	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	30	30	11	22.0	16.4	15	7.5	7.6	3.8	
1,1-Dichloroethene	ug/L	29	28	5.3	17.1	12.6	12	5.0	4.6	2.4	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.021 U	0.020 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	0.32 J	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	1.9 J	1.9 J	0.63 J	1.4 J	1.1 J	0.96 J	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	1.0 J	0.99 J	5.0 U	0.51 J	0.54 J	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	50 U	50 U	17 J	25.0 U	25.0 U	20 U	20 U	20 U	20 U	
Benzene	ug/L	6.8	7.0	1.1 J	2.0 J	2.1 J	0.64 J	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	0.55 J	5.0 U	0.37 J	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 U	1.3 J	2.2 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	8.1	7.9	3.7 J	6.2 J	5.4 J	5.1	2.8	2.8	1.9	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	320	350	170	275	243	250	170	150	110	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	2.7 J	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	2.2 J	2.2 J	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	76	75	1.8 J	48.3	54.4	39	21	44	27	
Toluene	ug/L	13	14	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	1.3 J	0.91 J	0.94 J	2.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	400	430	82	263	271	270	200	210	180	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	0.23 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	15	15	1.1 J	7.1 J	5.5 J	4.8 J	5.0 U	2.4 J	5.0 U	
Vinyl chloride	ug/L	12	12	2.6 J	5.2 J	3.3 J	3.1	2.0	1.5	1.0 U	
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Metals											
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.01 U	0.01 U	0.000254 J	0.005 U	0.005 U	0.000228 J	
Arsenic (dissolved)	mg/L	-	-		-	-	-	-	-	-	
Barium	mg/L	0.0979	0.104	0.0885	0.088 J	0.09 J	0.076	0.0767	0.0737	0.0807	
Barium (dissolved)	mg/L	-	-		-	-	-	-	-	-	
Cadmium	mg/L	0.0004 J	0.0050 U	0.0050 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	-	-		-	-	-	-	-	-	
Chromium	mg/L	0.0100 U	0.0100 U	0.0100 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U	
Chromium Total (dissolved)	mg/L	-	-		-	-	-	-	-	-	
Copper	mg/L	0.0100 U	0.0100 U	0.0100 U	0.025 U	0.025 U	0.000535 J	0.002 U	0.005 U	0.000838 J	
Copper (dissolved)	mg/L	-	-		-	-	-	-	-	-	
Iron	mg/L	0.100 U	0.174 U	0.0259 J	0.1 U	0.1 U	0.0132 J	0.1 U	0.1 U	0.1 U	
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	–	
Lead	mg/L	0.0026 J	0.0074 J	0.0100 U	0.005 U	0.005 U	0.000191 J	0.001 U	0.001 U	0.001 U	
Lead (dissolved)	mg/L	-	-		-	-	-	-	-	-	
Manganese	mg/L	0.0601	0.0679	0.0717	0.0477	0.0431	0.0428	0.0557	0.0474	0.0648	
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	–	
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 UJ	0.005 U	
Selenium (dissolved)	mg/L	-	-		-		-	-			
Dissolved Gas											
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.2 U	9 U	9 U	9 U	9 U	
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.2 U	7 U	7 U	7 U	7 U	
Methane	ug/L	200	210	13	55.7	12.1	15	4 U	4 U	2 J	
Wet Chemistry											

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

		Shallow Bedrock Unit							
Sample Location:		*MW-41*	*MW-41*	*MW-41*	*MW-41*	*MW-41*	*MW-41*	*MW-41*	
Sample ID:		*GW-102412-DJB-002*	*GW-041813-DJB-204*	*GW-013926-102413-DJB-104*	*GW-013926-042314-DJB-004*	*GW-013926-101414-DJB-101*	*GW-013926-031715-DJB-103*	*GW-013926-031715-DJB-104*	*GW-0139*
Sample Date:		*10/24/2012*	*4/18/2013*	*10/24/2013*	*4/23/2014*	*10/14/2014*	*3/17/2015*	*3/17/2015*	
								Duplicate	
Parameters	***Units***								
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	10.0 U	1.5 J	1.8	1.3	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	3.0 J	3.9 J	3.6	2.6	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	0.78 J	1.3 J	1.4	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	1.2 J	4.2 J	4.7	4.3	2.0 U	1.9 J	2.2	
1,2,4-Trichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	0.021 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	3.4 J	4.3 J	5.0	4.9	2.3	1.4	1.4	
1,2-Dichloropropane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	25.0 U	25.0 U	20 U	20 U	20 U	20 U	20 U	
Benzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	2.3 J	3.8 J	3.8	3.6	2.1	1.9	2.1	
Chloromethane (Methyl chloride)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	18.2	34.6	38	27	8.7	3.7	4.0	
cis-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	5.6 J	23.6	38	28	20	19	20	
Toluene	ug/L	10.0 U	10.0 U	1.0 U	1.8	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	11.8	42.7	47	33	16	12	13	
Trichlorofluoromethane (CFC-11)	ug/L	0.37 J	1.9 J	2.1	2.3	1.0 U	1.3	1.4	
Trifluorotrichloroethane (Freon 113)	ug/L	10.0 U	0.45 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Vinyl chloride	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Metals									
Arsenic	mg/L	0.0038 J	0.01 U	0.000348 J	0.005 U	0.005 U	0.000387 J	0.000382 J	
Arsenic (dissolved)	mg/L	-	-	-	-	-	-	-	
Barium	mg/L	0.297	0.301	0.19	0.22	0.198	0.189	0.187	
Barium (dissolved)	mg/L	-	-	-	-	-	-	-	
Cadmium	mg/L	0.005 U	0.005 U	0.000124 J	0.0007 U	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	-	
Chromium	mg/L	0.008 J	0.0051 J	0.005 U	0.005 U	0.000629 J	0.000565 J	0.00056 J	
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-	-	
Copper	mg/L	0.0088 J	0.0052 J	0.000315 J	0.002 U	0.0022	0.00105 J	0.000986 J	
Copper (dissolved)	mg/L	-	-	-	-	-	-	-	
Iron	mg/L	5.67	3.73	0.0763 J	0.184	0.182	0.0497 J	0.048 J	
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	
Lead	mg/L	0.005 U	0.005 U	0.001 U	0.001 U	0.00011 J	0.001 U	0.001 U	
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	
Manganese	mg/L	0.101	0.086	0.0381	0.046	0.0338	0.0284	0.0284	
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	
Selenium	mg/L	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	
Selenium (dissolved)	mg/L	-		-	-				
Dissolved Gas									
Ethane	ug/L	6.2 U	6.2 U	9 U	9 U	9 U	9 U	9 U	
Ethene	ug/L	6.2 U	6.2 U	7 U	7 U	7 U	7 U	7 U	
Methane	ug/L	6.6 U	6.6 U	4 U	4 U	4 U	4 U	4 U	
Wet Chemistry									

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-4A	MW-4A	MW-4A	MW-4A	MW-4A	MW-4A	MW-4A	
Sample ID:		GW-102512-DJB-006	GW-041713-DJB-202	GW-013926-102313-SAG-001	GW-013926-042314-DJB-002	GW-013926-101614-SAG-011	GW-013926-031815-DJB-106	GW-013926-102915-DJB-107	GW-013926
Sample Date:		10/25/2012	4/17/2013	10/23/2013	4/23/2014	10/16/2014	3/18/2015	10/29/2015	4/
Parameters	**Units**								
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	0.97 J	0.72 J	1.1	1.6	1.0 U	2.5	1.4	
1,1-Dichloroethene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	(
1,2-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	-	150 U	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10.0 U	10.0 U	10 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	25.0 U	25.0 U	20 U	20 U	20 U	20 U	20 U	
Benzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	9.8 J	8.8 J	11	17	9.6	16	14	
cis-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	4.3 J	4.2 J	7.8	8.0	5.9	7.6	7.7	
Toluene	ug/L	10.0 U	0.26 J	1.0 U	2.5	1.0 U	2.0	13	
trans-1,2-Dichloroethene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	3.3 J	3.2 J	4.4	5.1	3.7	16	5.0	
Trichlorofluoromethane (CFC-11)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	0.42 J	0.30 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Vinyl chloride	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Metals									
Arsenic	mg/L	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.
Arsenic (dissolved)	mg/L	-	-	-	-	-	-	--	
Barium	mg/L	0.0182 J	0.0237 J	0.0151	0.0176	0.0168	0.183	0.0168	
Barium (dissolved)	mg/L	-	-	-	-	-	-	--	
Cadmium	mg/L	0.005 U	0.005 U	0.0007 U	0.0007 U	0.0007 U	0.000132 J	0.0007 U	0
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	--	
Chromium	mg/L	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.00038 J	0.00115 J	(
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-	--	
Copper	mg/L	0.025 U	0.025 U	0.000526 J	0.002 U	0.00294	0.00341	0.00285	(
Copper (dissolved)	mg/L	-	-	-	-	-	-	--	
Iron	mg/L	0.1 U	0.292	0.0115 J	0.1 U	0.0443 J	0.0354 J	0.0738 J	
Iron (dissolved)	mg/L	-	-	-	-	-	-	--	
Lead	mg/L	0.0043 J	0.0125	0.00163	0.00151	0.00363	0.001 U	0.00107	(
Lead (dissolved)	mg/L	-	-	-	-	-	-	--	
Manganese	mg/L	0.0039 J	0.0035 J	0.000799 J	0.005 U	0.00264 J	2.3	0.00415 J	
Manganese (dissolved)	mg/L	-	-	-	-	-	-	--	
Selenium	mg/L	0.01 U	0.01 U	0.005 U	0.005 U	0.00085 J	0.005 U	0.000908 J	0.(
Selenium (dissolved)	mg/L	-		-	-			--	
Dissolved Gas									
Ethane	ug/L	6.2 U	6.2 U	9 U	9 U	9 U	9 U	9.0 U	
Ethene	ug/L	6.2 U	6.2 U	7 U	7 U	7 U	7 U	7.0 U	
Methane	ug/L	65.6	6.6 U	7	39	11	3 J	9.7	
Wet Chemistry									

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

		Bedrock Unit					
	Sample Location:	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A
	Sample ID:	GW-013926-102813-DJB-110	GW-013926-050114-DWH-108	GW-013926-101514-SAG-009	GW-013926-031815-SAG-010	GW-013926-102815-SAG-007	GW-013926-041316-MRB-009
	Sample Date:	10/28/2013	5/1/2014	10/15/2014	3/18/2015	10/28/2015	4/13/2016
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	7.2	6.0	8.8	8.2	6.5	9.9
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.6	1.0 U	1.0	0.87 J	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.021 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	84	48	55	40	40	42
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	6.2	18	18	7.9	12	24
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	130	140	120	77	75	80
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals							
Arsenic	mg/L	0.00173 J	0.005 U	0.000659 J	0.000629 J	0.005 U	0.000367 J
Arsenic (dissolved)	mg/L	-	-	-	-	--	-
Barium	mg/L	0.131	0.131	0.125	0.125	0.104	0.12
Barium (dissolved)	mg/L	-	-	-	-	--	-
Cadmium	mg/L	0.000117 J	0.0007 U	0.000704	0.000525 J	0.00071	0.00116
Cadmium (dissolved)	mg/L	-	-	-	-	--	-
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.000238 J	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	-	--	-
Copper	mg/L	0.000366 J	0.002 U	0.00229	0.00241	0.000873 J	0.00219
Copper (dissolved)	mg/L	-	-	-	-	--	-
Iron	mg/L	3.48	8.18	0.656	0.549	0.366	0.191
Iron (dissolved)	mg/L	-	-	-	--	--	--
Lead	mg/L	0.000183 J	0.001 U	0.00178	0.001 U	0.000471 J	0.00034 J
Lead (dissolved)	mg/L	-	-	-	-	--	-
Manganese	mg/L	3.72	3.56	3.61	3.11	2.76 J	--
Manganese (dissolved)	mg/L	-	-	-	--	--	-
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.000629 J	0.000652 J
Selenium (dissolved)	mg/L	-	-			--	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9 U	9 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7 U	7.0 U	7.0 U
Methane	ug/L	21	10	5	10	4.0 U	41
Wet Chemistry							

Attachment D
Calculations for April 2017 Event

Attachment D

All Headers VOCs and HAPs Calculations
April 28, 2017 Pre-Carbon
Aqua-Tech Environmenta, Inc. Super Fund Site
Greer, Spartanburg County, South Carolina

	Acetone	Benzene [g]	Carbon Disulfide [g]	Chlorobenzene [g]	Chloroethane [g]	Chloromethane	1,1-Dichloroethane [g]	1,1-Dichloroethylene [g]	Dichlorodifluoro-methane
Molecular Weight [a]	58.08	78.11	76.14	112.6	64.52	50.46	98.96	96.94	120.91
Results in *µg/m³* [c]	33.6	67.9	25.8	8.3	18.9	0.0	102.0	10.0	24.6
Conversion of µg/m³ to mg/m³ [d]	0.03	0.07	0.03	0.01	0.02	0.00	0.10	0.01	0.02
Effluent Flow Rate (SCFM) ***370***									
mg/m³ to rate of lbs/hr [e]	0.00005	0.00009	0.00004	0.00001	0.00003	-	0.00014	0.00001	0.00003
lbs/hr to tons/yr [f]	0.000204	0.000412	0.000157	0.000050	0.000115	0.000000	0.000619	0.000061	0.000149

Notes:

a Molecular weight provided on laboratory report
b µg/m³ is the initial unit of measurement in which the compound is reported, reported on laboratory report
c Please refer to Equation 1 to the right
d 1,000 *µg* is equal to 1 mg
e Please refer to Equation 2 to the right
g These compounds are considered HAPs (Hazardous Air Pollutants)

µg/m³ micrograms per cubic meter
mg/m³ milligrams per cubic meter
SCFM Standard cubic feet per minute
lbs/hr pounds per hour
tons/yr tons per year
ft³ cubic feet
L liter
nL nanoliter

Equations and Conversions

*Calculations made with assumption of standard Temperatur and Pressure, using the constant of 24.45 L air
*Example calculation using Acetone

1. *Micrograms per cubic meter to pounds per hour*

$$\frac{\left(\frac{26.6\mu g}{m^3}\right)\left(\frac{1mg}{1\times10^3\mu g}\right)\left(\frac{370ft^3}{\min}\right)\left(\frac{60\min}{hr}\right)}{\left(\frac{35.31ft^3}{m^3}\right)\left(\frac{453{,}592mg}{lb}\right)} = 0.0000$$

2. *Hourly rate to tons per year*

$$\left(\frac{0.0000368lb}{hr}\right)\left(\frac{24hr}{day}\right)\left(\frac{365day}{yr}\right)\left(\frac{1ton}{2000lb}\right) =$$

Attachment D

All Headers VOCs and HAPs Calculations
April 28, 2017 Pre-Carbon
Aqua-Tech Environmenta, Inc. Super Fund Site
Greer, Spartanburg County, South Carolina

	Ethylbenzene [g]	*Freon 113*	*Methylene Chloride* [g]	*Methyl ethyl ketone* [g]	*Propylene*	*1,1,1-Trichloroethane* [g]	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*Tetrachloroethylene* [g]
Molecular Weight [a]	106.2	187.4	84.94	72.11	42.08	133.4	120.2	120.2	165.8
Results in *µg/m³* [c]	79.3	24.6	5.8	3.6	28.2	238.0	12.3	8.7	2020.0
Conversion of µg/m³ to mg/m³ [d]	0.08	0.02	0.01	0.00	0.03	0.24	0.01	0.01	2.02
Effluent Flow Rate (SCFM) ***370***									
mg/m³ to rate of lbs/hr [e]	0.00011	0.00003	0.00001	0.00000	0.00004	0.00033	0.00002	0.00001	0.00280
lbs/hr to tons/yr [f]	0.000481	0.000149	0.000035	0.000022	0.000171	0.001445	0.000075	0.000053	0.01226

Notes:

- a Molecular weight provided on laboratory report
- b µg/m3 is the initial unit of measurement in which the compound is reported, reported on laboratory report
- c Please refer to Equation 1 to the right
- d 1,000 *µg* is equal to 1 mg
- e Please refer to Equation 2 to the right
- g These compounds are considered HAPs (Hazardous Air Pollutants)

ppbv	parts per billion by volume
µg/m³	micrograms per cubic meter
mg/m³	milligrams per cubic meter
SCFM	Standard cubic feet per minute
lbs/hr	pounds per hour
tons/yr	tons per year
ft³	cubic feet
L	liter
nL	nanoliter

Equations and Conversions

*Calculations made with assumption of standard Temperature and Pressure, using the constant of 24.45 L air

*Example calculation using Acetone

1. *Micrograms per cubic meter to pounds per hour*

$$\frac{\left(\frac{26.6\mu g}{m^3}\right)\left(\frac{1mg}{1\times10^3\mu g}\right)\left(\frac{370ft^3}{\min}\right)\left(\frac{60\min}{hr}\right)}{\left(\frac{35.31ft^3}{m^3}\right)\left(\frac{453{,}592mg}{lb}\right)} = 0.0000368$$

2. *Hourly rate to tons per year*

$$\left(0.0000368lb\right)\left(24hr\right)\left(365day\right)\left(\frac{1ton}{\ }\right) \quad 0.000163$$

Attachment E
Laboratory Report

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

May 25, 2017

Paul McMahon
CRA
2055 Niagara Falls Boulevard
Suite #3
Niagara Falls, NY 14304

RE: Project: AQUA TECH 013926
Pace Project No.: 92339692

Dear Paul McMahon:
Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

The report was revised on May 25, 2017 to include THC as gas.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Terefe Mazengia, CRA

REPORT OF LABORA' 'ORY ANALYSIS

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CERTIFICATIONS

Project: AQUA TECH 013926
Pace Project No.: 92339692

Minnesota Certification IDs
1700 Elm Street SE, Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: UST-078
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas Certification #: 88-0680
California Certification #: MN00064
CNMI Saipan Certification #:MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia WW Certification #: 382
Wisconsin Certification #: 999407970
Wyoming via EPA Region 8 Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: AQUA TECH 013926
Pace Project No.: 92339692

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92339692001	**A-042817-BKL-01**	Air	04/28/17 09:31	05/08/17 13:53

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: AQUA TECH 013926
Pace Project No.: 92339692

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92339692001	**A-042817-BKL-01**	TO-15	CH1, NCK	59	PASI-M

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SUMMARY OF DETECTION

Project: AQUA TECH 013926
Pace Project No.: 92339692

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92339692001	**A-042817-BKL-01**					
TO-15	Acetone	33.6	ug/m3	3.2	05/18/17 20:21	
TO-15	Benzene	67.9	ug/m3	0.44	05/18/17 20:21	
TO-15	2-Butanone (MEK)	3.6J	ug/m3	4.0	05/18/17 20:21	
TO-15	Carbon disulfide	25.8	ug/m3	0.84	05/18/17 20:21	
TO-15	Chlorobenzene	8.3	ug/m3	1.3	05/18/17 20:21	
TO-15	Chloroethane	18.9	ug/m3	0.72	05/18/17 20:21	
TO-15	Chloroform	9.4	ug/m3	0.66	05/18/17 20:21	
TO-15	Cyclohexane	31.0	ug/m3	0.94	05/18/17 20:21	
TO-15	1,2-Dichlorobenzene	14.2	ug/m3	1.6	05/18/17 20:21	
TO-15	1,3-Dichlorobenzene	4.7	ug/m3	1.6	05/18/17 20:21	
TO-15	1,4-Dichlorobenzene	48.4	ug/m3	1.6	05/18/17 20:21	
TO-15	Dichlorodifluoromethane	24.6	ug/m3	1.4	05/18/17 20:21	
TO-15	1,1-Dichloroethane	102	ug/m3	1.1	05/18/17 20:21	
TO-15	1,2-Dichloroethane	14.6	ug/m3	0.55	05/18/17 20:21	
TO-15	1,1-Dichloroethene	10	ug/m3	1.1	05/18/17 20:21	
TO-15	cis-1,2-Dichloroethene	2180	ug/m3	54.3	05/19/17 23:52	
TO-15	trans-1,2-Dichloroethene	11.7	ug/m3	1.1	05/18/17 20:21	
TO-15	Ethylbenzene	79.3	ug/m3	1.2	05/18/17 20:21	
TO-15	4-Ethyltoluene	2.8	ug/m3	1.3	05/18/17 20:21	
TO-15	n-Heptane	26.9	ug/m3	1.1	05/18/17 20:21	
TO-15	n-Hexane	10.1	ug/m3	0.96	05/18/17 20:21	
TO-15	Methylene Chloride	5.8	ug/m3	4.7	05/18/17 20:21	
TO-15	Naphthalene	14.9	ug/m3	3.6	05/18/17 20:21	
TO-15	Propylene	28.2	ug/m3	0.47	05/18/17 20:21	
TO-15	Tetrachloroethene	2020	ug/m3	46.2	05/19/17 23:52	
TO-15	THC as Gas	13800	ug/m3	139	05/18/17 20:21	
TO-15	Toluene	127	ug/m3	1.0	05/18/17 20:21	
TO-15	1,2,4-Trichlorobenzene	5.9	ug/m3	5.1	05/18/17 20:21	
TO-15	1,1,1-Trichloroethane	238	ug/m3	1.5	05/18/17 20:21	
TO-15	Trichloroethene	2760	ug/m3	36.8	05/19/17 23:52	
TO-15	Trichlorofluoromethane	4.2	ug/m3	1.5	05/18/17 20:21	
TO-15	1,1,2-Trichlorotrifluoroethane	157	ug/m3	2.1	05/18/17 20:21	
TO-15	1,2,4-Trimethylbenzene	12.3	ug/m3	1.3	05/18/17 20:21	
TO-15	1,3,5-Trimethylbenzene	8.7	ug/m3	1.3	05/18/17 20:21	
TO-15	Vinyl chloride	255	ug/m3	17.4	05/19/17 23:52	
TO-15	m&p-Xylene	229	ug/m3	2.4	05/18/17 20:21	
TO-15	o-Xylene	68.2	ug/m3	1.2	05/18/17 20:21	

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PROJECT NARRATIVE

Project: AQUA TECH 013926
Pace Project No.: 92339692

Method: **TO-15**
Description: TO15 MSV AIR
Client: GHD Services - Duluth, GA
Date: May 25, 2017

General Information:
1 sample was analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 474822

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- DUP (Lab ID: 2590456)
  - Acetone

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: AQUA TECH 013926
Pace Project No.: 92339692

Sample: A-042817-BKL-01 **Lab ID: 92339692001** Collected: 04/28/17 09:31 Received: 05/08/17 13:53 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Acetone	**33.6**	ug/m3	3.2	1.1	1.34		05/18/17 20:21	67-64-1	
Benzene	**67.9**	ug/m3	0.44	0.16	1.34		05/18/17 20:21	71-43-2	
Bromodichloromethane	ND	ug/m3	1.8	0.26	1.34		05/18/17 20:21	75-27-4	
Bromoform	ND	ug/m3	2.8	1.2	1.34		05/18/17 20:21	75-25-2	
Bromomethane	ND	ug/m3	1.1	0.42	1.34		05/18/17 20:21	74-83-9	
1,3-Butadiene	ND	ug/m3	0.60	0.24	1.34		05/18/17 20:21	106-99-0	
2-Butanone (MEK)	**3.6J**	ug/m3	4.0	0.31	1.34		05/18/17 20:21	78-93-3	
Carbon disulfide	**25.8**	ug/m3	0.84	0.14	1.34		05/18/17 20:21	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.86	0.26	1.34		05/18/17 20:21	56-23-5	
Chlorobenzene	**8.3**	ug/m3	1.3	0.18	1.34		05/18/17 20:21	108-90-7	
Chloroethane	**18.9**	ug/m3	0.72	0.26	1.34		05/18/17 20:21	75-00-3	
Chloroform	**9.4**	ug/m3	0.66	0.25	1.34		05/18/17 20:21	67-66-3	
Chloromethane	ND	ug/m3	0.56	0.14	1.34		05/18/17 20:21	74-87-3	
Cyclohexane	**31.0**	ug/m3	0.94	0.42	1.34		05/18/17 20:21	110-82-7	
Dibromochloromethane	ND	ug/m3	2.3	1.1	1.34		05/18/17 20:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.1	1.0	1.34		05/18/17 20:21	106-93-4	
1,2-Dichlorobenzene	**14.2**	ug/m3	1.6	0.69	1.34		05/18/17 20:21	95-50-1	
1,3-Dichlorobenzene	**4.7**	ug/m3	1.6	0.71	1.34		05/18/17 20:21	541-73-1	
1,4-Dichlorobenzene	**48.4**	ug/m3	1.6	0.67	1.34		05/18/17 20:21	106-46-7	
Dichlorodifluoromethane	**24.6**	ug/m3	1.4	0.64	1.34		05/18/17 20:21	75-71-8	
1,1-Dichloroethane	**102**	ug/m3	1.1	0.21	1.34		05/18/17 20:21	75-34-3	
1,2-Dichloroethane	**14.6**	ug/m3	0.55	0.27	1.34		05/18/17 20:21	107-06-2	
1,1-Dichloroethene	**10**	ug/m3	1.1	0.32	1.34		05/18/17 20:21	75-35-4	
cis-1,2-Dichloroethene	**2180**	ug/m3	54.3	16.5	67		05/19/17 23:52	156-59-2	
trans-1,2-Dichloroethene	**11.7**	ug/m3	1.1	0.51	1.34		05/18/17 20:21	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.3	0.36	1.34		05/18/17 20:21	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	0.49	1.34		05/18/17 20:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	0.35	1.34		05/18/17 20:21	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.9	0.42	1.34		05/18/17 20:21	76-14-2	
Ethyl acetate	ND	ug/m3	0.98	0.47	1.34		05/18/17 20:21	141-78-6	
Ethylbenzene	**79.3**	ug/m3	1.2	0.57	1.34		05/18/17 20:21	100-41-4	
4-Ethyltoluene	**2.8**	ug/m3	1.3	0.25	1.34		05/18/17 20:21	622-96-8	
n-Heptane	**26.9**	ug/m3	1.1	0.37	1.34		05/18/17 20:21	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.9	0.87	1.34		05/18/17 20:21	87-68-3	
n-Hexane	**10.1**	ug/m3	0.96	0.48	1.34		05/18/17 20:21	110-54-3	
2-Hexanone	ND	ug/m3	5.6	0.55	1.34		05/18/17 20:21	591-78-6	
Methylene Chloride	**5.8**	ug/m3	4.7	0.73	1.34		05/18/17 20:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.6	0.29	1.34		05/18/17 20:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	4.9	0.41	1.34		05/18/17 20:21	1634-04-4	
Naphthalene	**14.9**	ug/m3	3.6	0.41	1.34		05/18/17 20:21	91-20-3	
Propylene	**28.2**	ug/m3	0.47	0.18	1.34		05/18/17 20:21	115-07-1	
Styrene	ND	ug/m3	1.2	0.26	1.34		05/18/17 20:21	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.94	0.44	1.34		05/18/17 20:21	79-34-5	
Tetrachloroethene	**2020**	ug/m3	46.2	18.6	67		05/19/17 23:52	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.80	0.16	1.34		05/18/17 20:21	109-99-9	
THC as Gas	**13800**	ug/m3	139	47.7	1.34		05/18/17 20:21		

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ANALYTICAL RESULTS

Project: AQUA TECH 013926
Pace Project No.: 92339692

Sample: A-042817-BKL-01 **Lab ID: 92339692001** Collected: 04/28/17 09:31 Received: 05/08/17 13:53 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Toluene	**127**	ug/m3	1.0	0.21	1.34		05/18/17 20:21	108-88-3	
1,2,4-Trichlorobenzene	**5.9**	ug/m3	5.1	1.2	1.34		05/18/17 20:21	120-82-1	
1,1,1-Trichloroethane	**238**	ug/m3	1.5	0.33	1.34		05/18/17 20:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.74	0.33	1.34		05/18/17 20:21	79-00-5	
Trichloroethene	**2760**	ug/m3	36.8	18.5	67		05/19/17 23:52	79-01-6	
Trichlorofluoromethane	**4.2**	ug/m3	1.5	0.18	1.34		05/18/17 20:21	75-69-4	
1,1,2-Trichlorotrifluoroethane	**157**	ug/m3	2.1	0.40	1.34		05/18/17 20:21	76-13-1	
1,2,4-Trimethylbenzene	**12.3**	ug/m3	1.3	0.17	1.34		05/18/17 20:21	95-63-6	
1,3,5-Trimethylbenzene	**8.7**	ug/m3	1.3	0.25	1.34		05/18/17 20:21	108-67-8	
Vinyl acetate	ND	ug/m3	0.96	0.44	1.34		05/18/17 20:21	108-05-4	
Vinyl chloride	**255**	ug/m3	17.4	13.1	67		05/19/17 23:52	75-01-4	
m&p-Xylene	**229**	ug/m3	2.4	1.1	1.34		05/18/17 20:21	179601-23-1	
o-Xylene	**68.2**	ug/m3	1.2	0.47	1.34		05/18/17 20:21	95-47-6	

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QUALITY CONTROL DATA

Project: AQUA TECH 013926
Pace Project No.: 92339692

QC Batch: 474822
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 92339692001

METHOD BLANK: 2589503
Matrix: Air
Associated Lab Samples: 92339692001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	0.25	05/18/17 15:21	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	0.33	05/18/17 15:21	
1,1,2-Trichloroethane	ug/m3	ND	0.55	0.25	05/18/17 15:21	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	0.30	05/18/17 15:21	
1,1-Dichloroethane	ug/m3	ND	0.82	0.16	05/18/17 15:21	
1,1-Dichloroethene	ug/m3	ND	0.81	0.24	05/18/17 15:21	
1,2,4-Trichlorobenzene	ug/m3	ND	3.8	0.91	05/18/17 15:21	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	0.12	05/18/17 15:21	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	0.77	05/18/17 15:21	
1,2-Dichlorobenzene	ug/m3	ND	1.2	0.51	05/18/17 15:21	
1,2-Dichloroethane	ug/m3	ND	0.41	0.20	05/18/17 15:21	
1,2-Dichloropropane	ug/m3	ND	0.94	0.27	05/18/17 15:21	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	0.18	05/18/17 15:21	
1,3-Butadiene	ug/m3	ND	0.45	0.18	05/18/17 15:21	
1,3-Dichlorobenzene	ug/m3	ND	1.2	0.53	05/18/17 15:21	
1,4-Dichlorobenzene	ug/m3	ND	1.2	0.50	05/18/17 15:21	
2-Butanone (MEK)	ug/m3	ND	3.0	0.23	05/18/17 15:21	
2-Hexanone	ug/m3	ND	4.2	0.41	05/18/17 15:21	
4-Ethyltoluene	ug/m3	ND	1.0	0.19	05/18/17 15:21	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	4.2	0.22	05/18/17 15:21	
Acetone	ug/m3	ND	2.4	0.83	05/18/17 15:21	
Benzene	ug/m3	ND	0.32	0.12	05/18/17 15:21	
Bromodichloromethane	ug/m3	ND	1.4	0.19	05/18/17 15:21	
Bromoform	ug/m3	ND	2.1	0.90	05/18/17 15:21	
Bromomethane	ug/m3	ND	0.79	0.31	05/18/17 15:21	
Carbon disulfide	ug/m3	ND	0.63	0.10	05/18/17 15:21	
Carbon tetrachloride	ug/m3	ND	0.64	0.19	05/18/17 15:21	
Chlorobenzene	ug/m3	ND	0.94	0.13	05/18/17 15:21	
Chloroethane	ug/m3	ND	0.54	0.19	05/18/17 15:21	
Chloroform	ug/m3	ND	0.50	0.19	05/18/17 15:21	
Chloromethane	ug/m3	ND	0.42	0.11	05/18/17 15:21	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	0.25	05/18/17 15:21	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	0.37	05/18/17 15:21	
Cyclohexane	ug/m3	ND	0.70	0.32	05/18/17 15:21	
Dibromochloromethane	ug/m3	ND	1.7	0.86	05/18/17 15:21	
Dichlorodifluoromethane	ug/m3	ND	1.0	0.48	05/18/17 15:21	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	0.31	05/18/17 15:21	
Ethyl acetate	ug/m3	ND	0.73	0.35	05/18/17 15:21	
Ethylbenzene	ug/m3	ND	0.88	0.42	05/18/17 15:21	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	0.65	05/18/17 15:21	
m&p-Xylene	ug/m3	ND	1.8	0.79	05/18/17 15:21	

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QUALITY CONTROL DATA

Project: AQUA TECH 013926
Pace Project No.: 92339692

METHOD BLANK: 2589503 Matrix: Air
Associated Lab Samples: 92339692001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methyl-tert-butyl ether	ug/m3	ND	3.7	0.30	05/18/17 15:21	
Methylene Chloride	ug/m3	2.3J	3.5	0.54	05/18/17 15:21	
n-Heptane	ug/m3	ND	0.83	0.28	05/18/17 15:21	
n-Hexane	ug/m3	ND	0.72	0.36	05/18/17 15:21	
Naphthalene	ug/m3	ND	2.7	0.30	05/18/17 15:21	
o-Xylene	ug/m3	ND	0.88	0.35	05/18/17 15:21	
Propylene	ug/m3	ND	0.35	0.14	05/18/17 15:21	
Styrene	ug/m3	ND	0.87	0.19	05/18/17 15:21	
Tetrachloroethene	ug/m3	ND	0.69	0.28	05/18/17 15:21	
Tetrahydrofuran	ug/m3	ND	0.60	0.12	05/18/17 15:21	
THC as Gas	ug/m3	ND	104	35.6	05/18/17 15:21	
Toluene	ug/m3	0.55J	0.77	0.15	05/18/17 15:21	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	0.38	05/18/17 15:21	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	0.26	05/18/17 15:21	
Trichloroethene	ug/m3	ND	0.55	0.28	05/18/17 15:21	
Trichlorofluoromethane	ug/m3	ND	1.1	0.13	05/18/17 15:21	
Vinyl acetate	ug/m3	ND	0.72	0.33	05/18/17 15:21	
Vinyl chloride	ug/m3	ND	0.26	0.20	05/18/17 15:21	

LABORATORY CONTROL SAMPLE: 2589504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	58.2	54.5	94	70-134	
1,1,2,2-Tetrachloroethane	ug/m3	74.7	70.7	95	70-130	
1,1,2-Trichloroethane	ug/m3	59.3	55.7	94	70-130	
1,1,2-Trichlorotrifluoroethane	ug/m3	81.8	69.8	85	70-130	
1,1-Dichloroethane	ug/m3	43.6	37.8	87	70-130	
1,1-Dichloroethene	ug/m3	42.7	34.9	82	70-130	
1,2,4-Trichlorobenzene	ug/m3	74.7	54.4	73	60-150	
1,2,4-Trimethylbenzene	ug/m3	51.5	54.3	106	70-136	
1,2-Dibromoethane (EDB)	ug/m3	83.6	82.4	99	70-130	
1,2-Dichlorobenzene	ug/m3	63.6	57.0	90	70-139	
1,2-Dichloroethane	ug/m3	44	39.9	91	70-130	
1,2-Dichloropropane	ug/m3	50.7	48.7	96	70-131	
1,3,5-Trimethylbenzene	ug/m3	51.5	56.5	110	70-133	
1,3-Butadiene	ug/m3	23.4	20.3	87	70-130	
1,3-Dichlorobenzene	ug/m3	61.7	65.9	107	70-144	
1,4-Dichlorobenzene	ug/m3	63.6	62.9	99	70-139	
2-Butanone (MEK)	ug/m3	32.4	26.0	80	70-130	
2-Hexanone	ug/m3	44.6	48.5	109	70-138	
4-Ethyltoluene	ug/m3	49.5	45.4	92	70-135	
4-Methyl-2-pentanone (MIBK)	ug/m3	44.6	46.2	104	70-130	
Acetone	ug/m3	25.1	21.5	86	64-130	
Benzene	ug/m3	34.7	32.5	94	70-130	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: AQUA TECH 013926
Pace Project No.: 92339692

LABORATORY CONTROL SAMPLE: 2589504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromodichloromethane	ug/m3	72.2	64.7	90	70-134	
Bromoform	ug/m3	116	106	92	70-150	
Bromomethane	ug/m3	39.1	33.1	85	70-130	
Carbon disulfide	ug/m3	33.2	35.9	108	70-134	
Carbon tetrachloride	ug/m3	68.4	65.9	96	68-150	
Chlorobenzene	ug/m3	50.1	45.7	91	70-132	
Chloroethane	ug/m3	26.3	22.6	86	70-132	
Chloroform	ug/m3	51.1	47.1	92	70-130	
Chloromethane	ug/m3	21.4	18.8	88	70-130	
cis-1,2-Dichloroethene	ug/m3	43.9	35.4	81	70-133	
cis-1,3-Dichloropropene	ug/m3	51.7	48.1	93	70-137	
Cyclohexane	ug/m3	37.1	37.6	102	70-130	
Dibromochloromethane	ug/m3	97	82.2	85	70-144	
Dichlorodifluoromethane	ug/m3	52.8	41.2	78	70-130	
Dichlorotetrafluoroethane	ug/m3	69.6	62.1	89	70-130	
Ethyl acetate	ug/m3	37.7	33.0	88	70-130	
Ethylbenzene	ug/m3	47.7	51.7	109	70-134	
Hexachloro-1,3-butadiene	ug/m3	109	99.5	91	45-150	
m&p-Xylene	ug/m3	47.7	50.3	106	70-130	
Methyl-tert-butyl ether	ug/m3	38.8	34.2	88	66-148	
Methylene Chloride	ug/m3	39.2	31.7	81	67-133	
n-Heptane	ug/m3	44.2	44.2	100	70-130	
n-Hexane	ug/m3	38.7	31.6	82	67-132	
Naphthalene	ug/m3	56	35.5	63	53-150	
o-Xylene	ug/m3	47.2	46.8	99	70-130	
Propylene	ug/m3	19.2	16.5	86	70-135	
Styrene	ug/m3	45.5	46.4	102	70-139	
Tetrachloroethene	ug/m3	72.4	63.4	88	70-130	
Tetrahydrofuran	ug/m3	33	30.6	93	70-130	
THC as Gas	ug/m3	3740	4290	115	63-150	
Toluene	ug/m3	41.4	38.8	94	70-130	
trans-1,2-Dichloroethene	ug/m3	41.9	38.2	91	70-131	
trans-1,3-Dichloropropene	ug/m3	48.4	54.9	113	70-142	
Trichloroethene	ug/m3	57.9	53.0	92	70-130	
Trichlorofluoromethane	ug/m3	58.8	48.6	83	70-130	
Vinyl acetate	ug/m3	40.4	33.0	82	70-137	
Vinyl chloride	ug/m3	27	24.4	90	70-130	

SAMPLE DUPLICATE: 2590456

Parameter	Units	10388848002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: AQUA TECH 013926
Pace Project No.: 92339692

SAMPLE DUPLICATE: 2590456

Parameter	Units	10388848002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	ND	1.2J		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	ND	4.4J		25	
2-Hexanone	ug/m3	ND	ND		25	
4-Ethyltoluene	ug/m3	ND	0.86J		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	4.0J		25	
Acetone	ug/m3	1870	1820	3	25	E
Benzene	ug/m3	ND	0.79		25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	ND	1.2		25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	652	657	1	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.3	2.2	3	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethyl acetate	ug/m3	14.5	15.1	4	25	
Ethylbenzene	ug/m3	7.9	8.2	3	25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	34.0	33.9	0	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	ND	4.7J		25	
n-Heptane	ug/m3	887	867	2	25	
n-Hexane	ug/m3	85.1	84.9	0	25	
Naphthalene	ug/m3	ND	4.6		25	
o-Xylene	ug/m3	14.2	14.5	2	25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	0.82J		25	
Tetrachloroethene	ug/m3	116	117	1	25	
Tetrahydrofuran	ug/m3	ND	ND		25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: AQUA TECH 013926
Pace Project No.: 92339692

SAMPLE DUPLICATE: 2590456

Parameter	Units	10388848002 Result	Dup Result	RPD	Max RPD	Qualifiers
Toluene	ug/m3	13.7	13.9	1	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	0.60J		25	
Trichlorofluoromethane	ug/m3	ND	1.4J		25	
Vinyl acetate	ug/m3	12.4	12.1	2	25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALIFIERS

Project: AQUA TECH 013926
Pace Project No.: 92339692

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AQUA TECH 013926
Pace Project No.: 92339692

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92339692001	**A-042817-BKL-01**	TO-15	474822		

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

23256

Page: 1 of 1

Section A Required Client Information:

Company: GHD
Address: 2015 Breckinridge Blvd Suite 470
Email To:
Phone: 770 441 0011 Fax: 770 441 2050
Requested Due Date/TAT:

Section B Required Project Information:

Report To: See
Copy To: See
Purchase Order No.:
Project Name: Hightech
Project Number: 013720

Section C Invoice Information:

Attention:
Company Name: GHD
Address:
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #:

Program: UST, Superfund, Emissions, Clean Air Act, Voluntary Clean Up, Dry Clean, RCRA, Other____

Location of Sampling by State: SC

Reporting Units: ug/m³ ___ mg/m³ ___ PPBV ___ PPMV ___ Other ___

Report Level: II.___ III.___ IV.___ Other____

Method: PM10, 3C: Fixed Gas (%), TO-3, TO-3M (Methane), TO-4 (PCBs), TO-13 (PAH), TO-14, TO-15, TO15 Short List* 923396-92

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

ITEM #	AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED: COMPOSITE START / END GRAB (Grab) DATE	TIME	COMPOSITE END DATE	TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Pace Lab ID
1	A-042817-BKL-01	6LC		4/28/17	09:30	4/28/17	09:31	-30	0	1586		OCA
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Comments :

WO#: 92339692

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
B Longo	5/4/17	10:30	BV pace HU	5/8/17	1353

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: B. Longo
SIGNATURE of SAMPLER: B Longo
DATE Signed (MM/DD/YY): 04/28/17

SAMPLE CONDITIONS

Temp in °C	NA		
Received on Ice	Y/N	Y/N	Y/N
Custody Sealed Cooler	Y/N	Y/N	Y/N
Samples Intact	Y/N	Y/N	Y/N

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BLANK PAGE

#4

December 20, 2017

Reference No. 013926

Ms. Yvonne O. Jones
Remedial Project Manager
US EPA, REGION 4
Waste Management Division
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960

Dear Ms. Jones:

Re: October 2017 Semi-Annual Groundwater Monitoring and SVE Emission Monitoring
Aqua-Tech Environmental, Inc. Superfund Site
Greer, Spartanburg County, South Carolina

GHD conducted the semi-annual groundwater monitoring at the Aqua-Tech Environmental, Inc. Superfund Site (Site) in accordance with the approved Remedial Design Work Plan dated September 2006. Groundwater monitoring was performed in the two separate areas of the Site as follows:

- Administration Area (northeast portion of the Site); and
- Downgradient Area (western portion of the Site).

This letter summarizes the October 2017 sampling procedures and results of the post-injection performance monitoring at the Administrative Area and the Monitored Natural Attenuation (MNA) groundwater monitoring at the Downgradient Area, and the air sampling from the soil vapor extraction (SVE) system.

1. Introduction

1.1 Administration Area

The October 2017 event was completed as part of the semi-annual sampling program following the March 2011 full-scale ISCO injection at the former Administrative Area. The injection locations and subsequent monitoring wells are presented on Figure 1. The October 2017 sampling event was the thirteenth post-injection groundwater monitoring event which has been conducted since March 2011.

1.2 Downgradient Area

Wells in and around the Downgradient Area (area south of MW-12, MW-11A, MW-41, MW-42, etc.) including select monitoring wells from all three water bearing units, are included in the MNA assessment as shown on Figure 2. Based on the recommendations presented in the Final Construction Report, Part II, groundwater sampling of select monitoring wells for MNA evaluation is performed to monitor the natural attenuation rate in the groundwater at the Downgradient Area.

1.3 SVE Emission Testing

Routine semi-annual monitoring of the emissions from the SVE system is conducted, pursuant to the operation and maintenance (O&M) plan for the continuous operation of the SVE system.

2. Groundwater Monitoring

The depth to groundwater was measured in all Site monitoring wells during this sampling event (October 2017) except for MW-10, MW-16, MW-17, MW-21, and TW-3 which were either not found or damaged. Groundwater elevation measurements are summarized in Table 1. The groundwater elevation maps generated based on the October 17, 2017 groundwater elevations are presented on Figures 3A, 3B and 3C for the saprolite, shallow bedrock and bedrock water bearing units, respectively. Groundwater flow direction in all these units was consistent with previous monitoring events.

2.1 Groundwater Sampling

Groundwater sampling activities were conducted in general accordance with the recommendations provided in United States Environmental Protection Agency (USEPA) Region IV Field Branches Quality Systems and Technical Procedures (FBQSTP), Science and Ecosystem Support Division (SESD) Procedure Number SESDPROC-301-R3 (Groundwater Sampling). Each sampling location was purged under low-flow conditions using a bladder pump fitted with dedicated ¼-inch outer diameter (¼"-OD) polyethylene tubing. Field parameters (i.e., temperature, conductivity, turbidity, dissolved oxygen [DO], pH, and oxidation-reduction potential [ORP]) were measured in the flow-through cell of a calibrated, multi-parameter water quality meter[1]. Flow rates were maintained within a range of 65 milliliters per minute (mL/min) to 125 mL/min and depths to groundwater were measured to monitor drawdown. Stabilization of the field parameters indicated entry of representative formation water into the screened interval. Upon stabilization, sampling was performed with the same equipment used for purging. Select monitoring wells (MW-7A, MW-35, MW-41, MW-42 and TW-2) were purged using the multi-volume purging method due to the significant drawdown that occurred during implementation of the low-flow purging method. Records of the monitoring well low-flow and multi-volume purging for the October 2017 monitoring event are included in Attachment A. Samples were collected directly into laboratory supplied pre-cleaned sample jars. All groundwater samples were preserved in ice-filled coolers and picked up by Analytical Environmental Services, Inc. (AES) courier service; the samples were relinquished to the courier under standard chain of custody (COCs) protocols.

A blind duplicate sample was collected from monitoring well MW-3 (GW-013926-102017-DJB-112) and submitted to AES for quality assurance/quality control (QA/QC) purposes.

3. Performance Groundwater Monitoring - Administrative Area

Pre- and post-injection groundwater sampling was performed at the Administrative Area (full-scale ISCO) in and downgradient of the injection zone. The pre- and post-injection groundwater performance monitoring sampling was conducted at monitoring well locations MW-27, MW-28, MW-32, MW-39 and MW-40. The groundwater performance monitoring locations are illustrated on Figure 1.

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1 Horiba U-53 Multi-parameters Water Quality measuring instrument.

Each groundwater sample was analyzed for the following parameters:

- Field parameters (i.e., pH, conductivity, oxidation-reduction potential [ORP], dissolved oxygen [DO] and temperature);
- Volatile organic compounds (VOCs) and target analyte list (TAL) metals; and
- Geochemical parameters.

3.1 Analytical Results

During this event, PCE concentrations were reported more than 45 percent (%) lower than concentrations prior to the full-scale injection. PCE concentrations decreased up to 50 % in monitoring well MW-27 (870 micrograms per liter [µg/L]), MW-28 (960 µg/L), MW-32 (1100 µg/L), up to 80% in monitoring well MW-39 (79 µg/L), and MW-40 (12 µg/L) compared to the baseline pre-injection concentrations. Concentrations have been generally stable in the injection area wells with minor variations, however, concentrations in MW-27, MW-28, and MW-32 have seen an increase compared to the prior sampling event. The increases in these three wells are still within the concentrations prior to the full-scale injection. Concentrations of PCE in the downgradient well MW-39 continue to trend lower; concentration of PCE in well MW-39 shows up to 75% reduction as compared to the pre-injection concentrations.

Concentrations of sodium and sulfate show a decreasing trend with slight variations at all monitoring locations. During this sampling event, concentrations of sodium ranged from 48.7 mg/L (MW-28) to 7.06 mg/L (MW-40) and sulfate concentrations ranged from 8.9 mg/L (MW-27) to 1.8 mg/L (MW-40).

Groundwater analytical results for the pre- and select post-injection events are summarized in Table 2. The sample keys, data quality assessment and validation memorandums, and complete analytical data reports for the October 2017 post-injection groundwater sampling event are included in Attachment B. Analytical results for all pre- and post- injection events are summarized in the tables provided in Attachment C.

3.2 Summary of Results

Reductions in PCE concentrations at the injection area ranged from 45 % in monitoring well MW-32 to 85 % in monitoring well MW-40. PCE concentrations within the injection area encompassing MW-27, MW-28, and MW-32 had been showing signs of stability and downward trend, but have shown an increase during the October sampling event. The increases in the above three monitoring wells are still within the concentrations prior the full-scale injection. Comparisons of the concentrations of select parameters prior to and post-ISCO injection are presented in Table 3. PCE concentrations in downgradient monitoring wells MW-39 and MW-40 were lower or stable suggesting the original source area is no longer contributing to degradation of the downgradient groundwater.

The downgradient concentrations of sodium, sulfate and ORP values (see Table 3) also demonstrated the continued influence of the injection based on the presence of the oxidant and suggesting the continuation of the oxidation reaction. DO concentrations ranged from 0.95 mg/L at MW-27 to 13.21 mg/L at MW-39; ORP values ranged from 466 mV at MW-32 to 432 mV at MW-40 in groundwater samples.

The pre- and post-injection groundwater VOC detections in the former Administrative Area are presented on Figure 4.

The groundwater monitoring data indicate that the chemical oxidation rate of VOCs is decreasing as anticipated. Based on the overall results of the ISCO injection, chemical oxidation of VOCs in groundwater using activated sodium persulfate was successful and substantially reduced residual VOC mass from the groundwater in the Administration Area. Although still significantly below pre-injection concentrations, variations in PCE concentrations were observed during this post-injection monitoring event at MW-27 (870 µg/L), MW-28 (960 µg/L), MW-32 (1100 µg/L), MW-39 (64 µg/L) and MW-40 (12 µg/L).

4. Monitored Natural Attenuation Monitoring - Downgradient Area

MNA was proposed as part of the long-term Site-wide groundwater remedy, particularly for the Downgradient Area. The monitoring wells sampled for the MNA assessment are shown on Figure 2. The following monitoring wells from each water-bearing unit were included in the semi-annual groundwater monitoring program:

- Saprolite unit - MW-3, MW-4, MW-11, MW-12, MW-14, MW-35, MW-42, and TW-2;
- Shallow bedrock unit - MW-7A, MW-10A, MW-13, and MW-41; and
- Bedrock unit - MW-4A and MW-11A.

4.1 Analytical Results

VOC detections in groundwater for the MNA assessment are summarized in Tables 4A and 4B for the Saprolite and Shallow Bedrock and Bedrock units, respectively and are illustrated on Figures 5A through 5D.

Within the saprolite unit, concentrations of parent compounds and their degradation products have shown a decrease in multiple monitoring wells since the February 2011 sampling event. Concentrations of PCE have decreased approximately 39% in MW-12 and 65% in MW-42. Concentrations of TCE decreased at MW-12, MW-35, and MW-42 since the Baseline Sampling; the highest TCE reduction (approximately 85%) was seen at MW-12. Concentrations of cis-1,2-DCE decreased at MW-12, MW-35 and MW-42 since February 2011, with the highest drop (more than 90%) seen at MW-12.

General observations show that concentrations tend to decrease along the groundwater flow path between MW-12 (north) and MW-4 (south) with the exception of MW-42. Concentrations reported in MW-42 remain elevated as compared to the up and down gradient monitoring wells. These concentrations are consistent with historical data, and may be due to a localized historic release; however any impacts remain very limited.

In the Shallow Bedrock, concentrations of select COCs (PCE, TCE and cis-1,2-DCE) reported at MW-13 and MW-41 were generally similar to prior results showing a downward trend. Concentrations decrease along the groundwater flow path in the shallow bedrock from MW-13 to MW-10A. The decrease in the COCs at MW-13 without a corresponding increase in the downgradient well MW-10A is evidence that natural attenuation via biodegradation is on-going at the Site.

In the bedrock, concentrations of COCs have generally stayed the same in MW-4A and MW-11A. Concentrations furthest downgradient at MW-4A were generally below detection limits with few exceptions, indicating that concentrations are decreasing along the groundwater flow path.

The overall redox (ORP) data at the wells sampled indicate that there is an oxidizing condition in all three aquifer units. The presence of methane, a product of biodegradation, in select monitoring wells (MW-3, MW-4, MW-7A, MW-10A, MW-11, MW-12, MW-42, and TW-2) indicates that natural conditions may be reducing in the area. The highest methane concentration was reported at MW-7A (3600 µg/L).

Concentrations of total organic carbon (TOC) in the source area groundwater, which serves as the substrate (food source) for the microbes, is at or below 4 mg/L and TOC in the background wells in the saprolite are slightly conducive (above 1 mg/L). These values are generally lower than the 20 mg/L that the EPA recommends for robust biodegradation, but still contribute to the biodegradation process.

The results of this natural attenuation evaluation indicate that biodegradation of COCs is on-going and that natural attenuation processes at the Site are limiting the downgradient migration of COCs. However, the ability of the local microbial population to degrade the COCs may be limited by the available organic carbon in the groundwater at the Site. Further monitoring will continue to determine the rate of on-going biodegradation of COCs at the Site.

The sample keys, data quality assessment and validation memorandums, and complete analytical data reports for the October 2017 MNA assessment groundwater sampling event are included in Attachment B.

5. SVE System Emission Testing

The most recent emission sampling was conducted on October 20, 2017. During this event, the air sample was collected and analyzed from the combined flow from all 40 SVE wells. The sample was collected from the sample port located prior to the granular-activated carbon (GAC) units at a flow rate of approximately 355 standard cubic feet per minute (scfm). A figure illustrating the location of the wells and the associated well headers is provided as Figure 6.

The air sample was collected in a six liter Summa canister which was provided by Pace Analytical Services (PACE). The sample was analyzed for volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The average hourly and monthly emission rates for VOCs and HAPs were calculated using the flow rate and the analytical result for each analyte. The emission rates were calculated for each detected analyte and the averages were summed over the entire list of detected VOCs and HAPs to obtain an average total emission rate based on each sample. Attachment D shows the calculations for the October 2017 event. The laboratory report is provided as Attachment E.

The estimated average emission rates of VOCs and HAPs from all headers for this and the last three semi-annual sampling events are summarized below:

	April 11, 2016 Pre-Carbon Treatment	October 18, 2016 Pre-Carbon Treatment	April 28, 2017 Pre-Carbon Treatment	October 20, 2017 Pre-Carbon Treatment
Lbs VOCs/hr	0.010 [2]	0.032	0.031	0.018
Lbs HAPs/hr	0.007	0.008	0.008	0.009

[2] THC as Gas was inadvertently left out of the analysis list for TO-15 in the April 2016 sample

In general, emission rates of VOCs and HAPs have stabilized and remain similar to the previous events. The emission rates since October 2010 are presented on the graph provided as Figure 7 to show the trends with time.

GHD anticipates further reductions may be achievable and will continue operation of the SVE system utilizing flow from all 40 SVE wells. During the next sampling event, the air sample will be collected after the system runs for at least 24 hours after purging the condensate from the traps, if any, and system start-up. On/off cycling of the SVE system may be considered to improve recovery if the current recovery rate remains stable. Pursuant to the O&M plan, the next sampling event is tentatively scheduled to coincide with the semi-annual groundwater monitoring event.

The next round of ISCO and MNA groundwater monitoring and SVE emission testing is scheduled for April 2018.

Please contact the undersigned at (678) 280-2140 if you have any questions or comments regarding the above.

Sincerely,

GHD

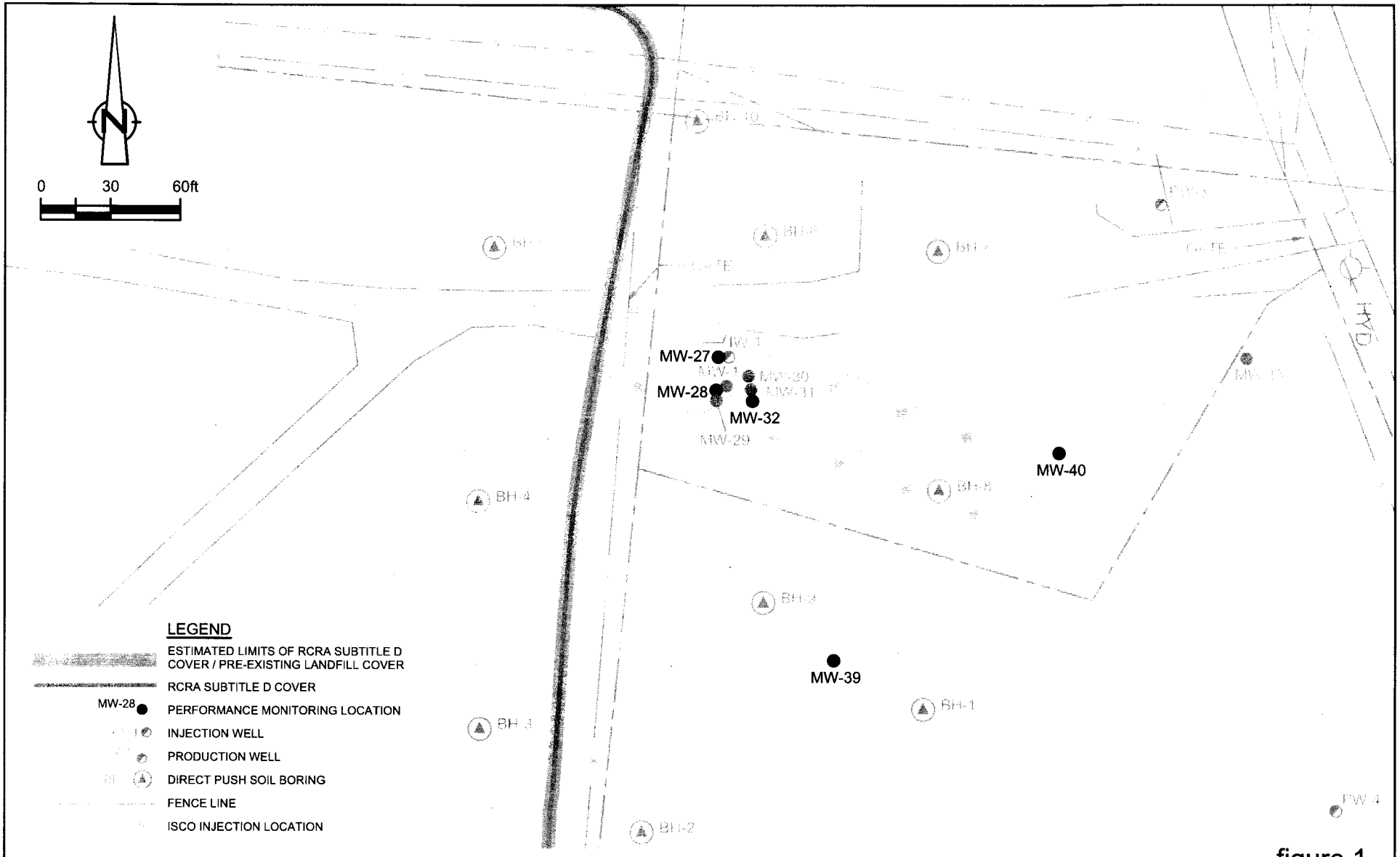
Tesfe Mazengia, PG

R. T. (Bob) Pyle

TM/tb/174
Encl.

cc: Joel Padgett, SCDHEC
Dave Roberson, de maximis
Amy Magee, King & Spalding

Figures



NOTE:
1. THE LOCATION OF INJECTION POINTS IS APPROXIMATE.
2. GROUNDWATER MONITORING SAMPLES COLLECTED FROM MONITORING WELL LOCATIONS: MW-27, MW-28, MW-32, MW-39, AND MW-40.

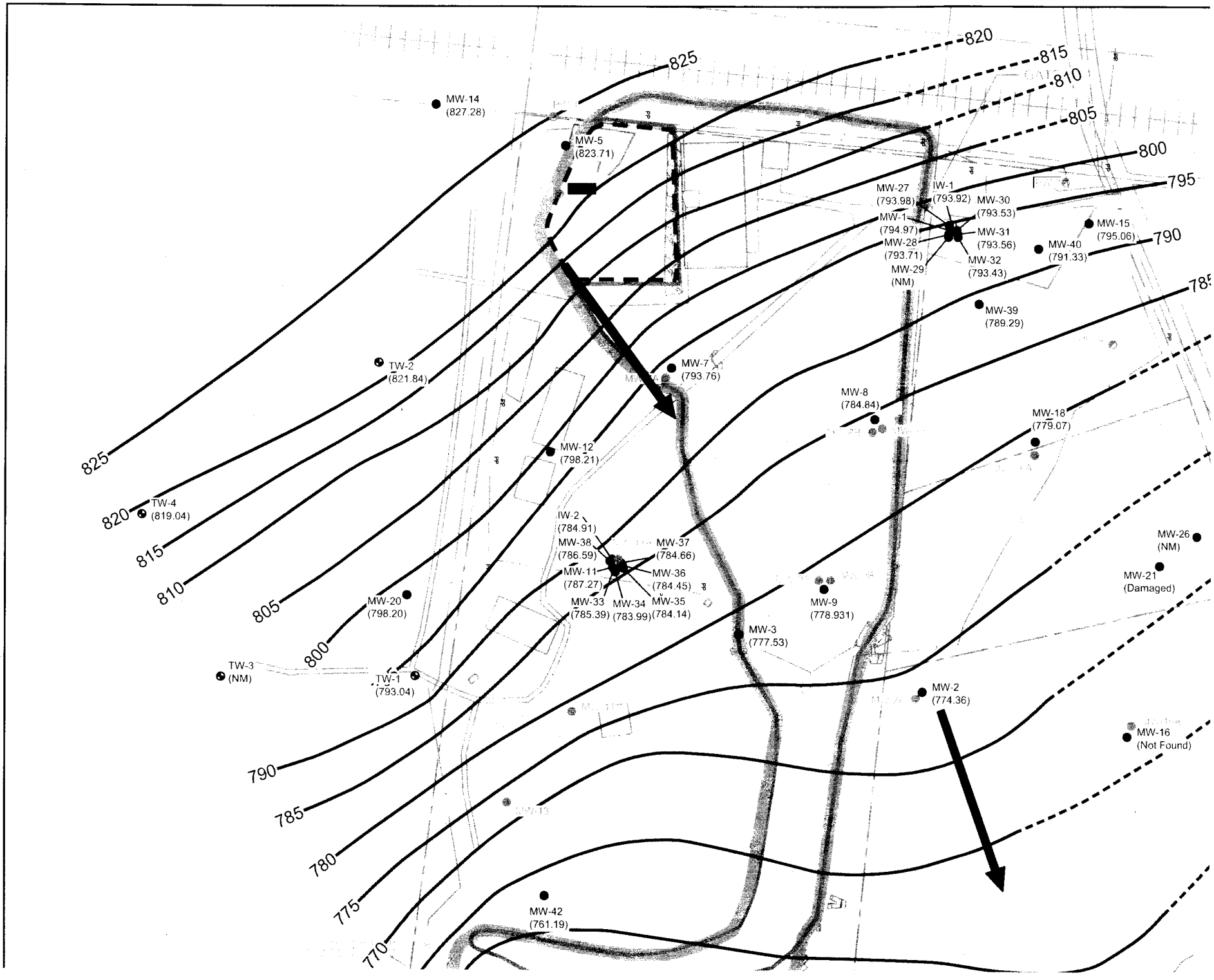
SOURCE: TRIAD SURVEYORS, INC. BOUNDARY SURVEY DATED 10/31/2011.

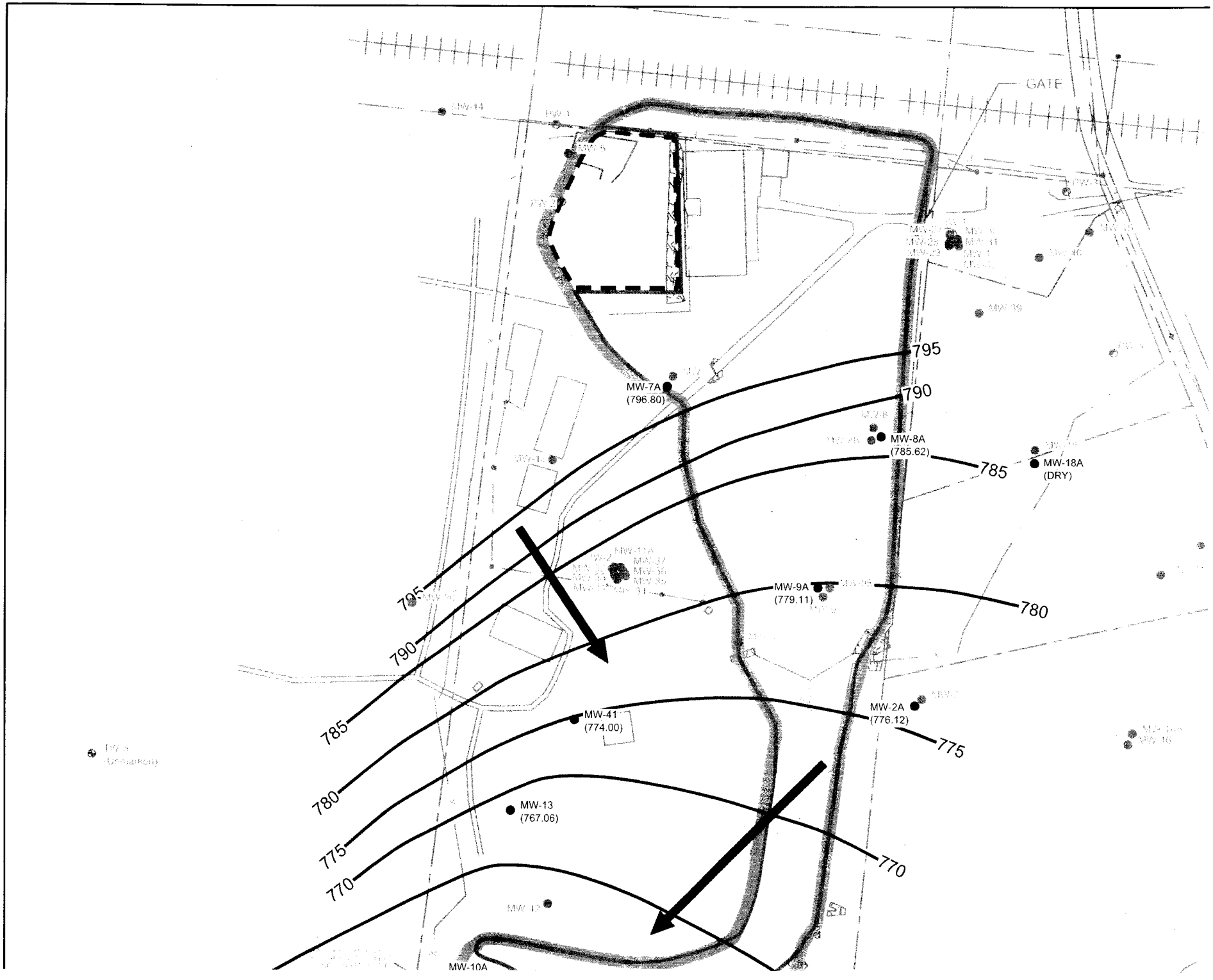
figure 1

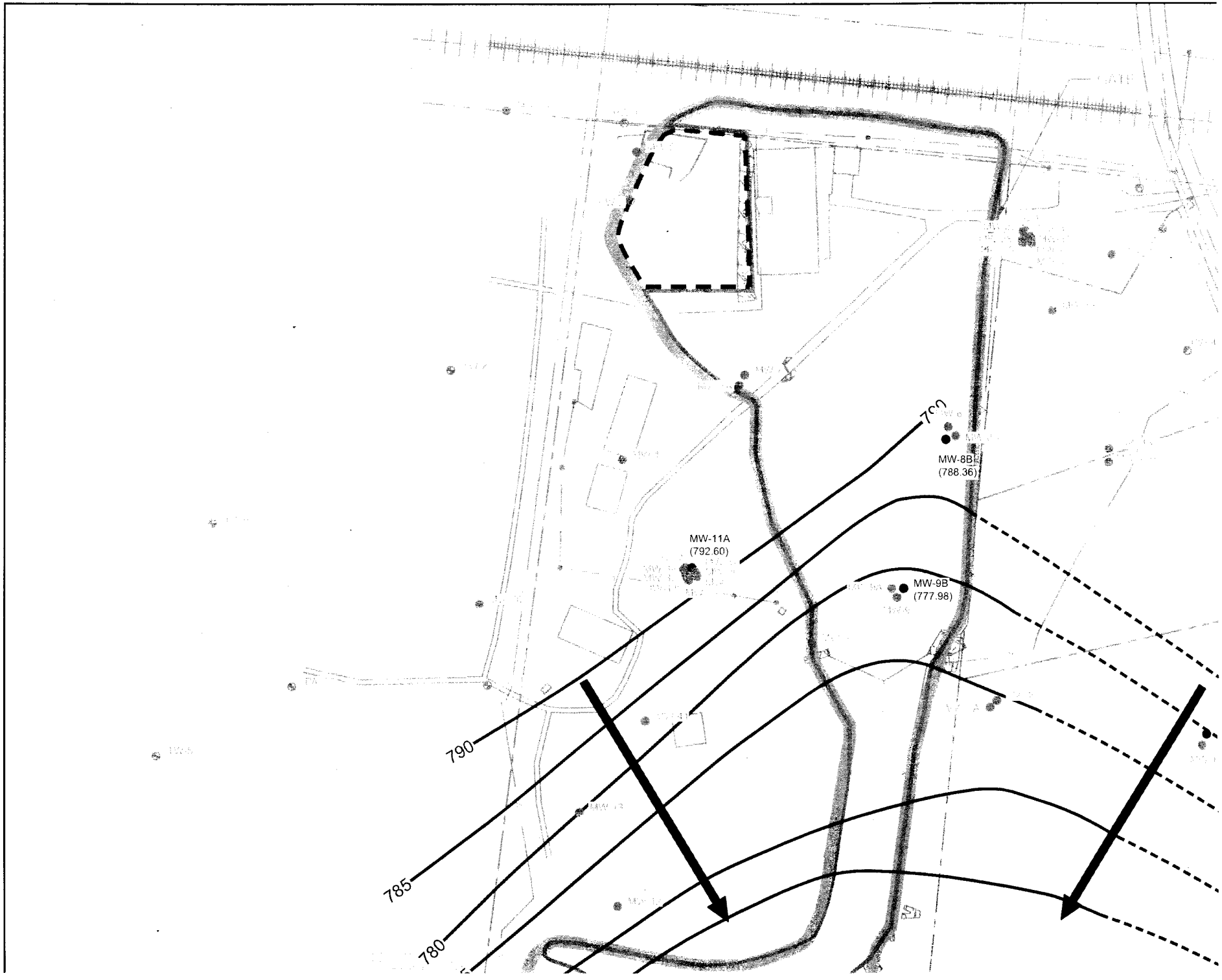
POST INJECTION AND MONITORING LOCATIONS
AQUA-TECH ENVIRONMENTAL, INC.
Greer, South Carolina

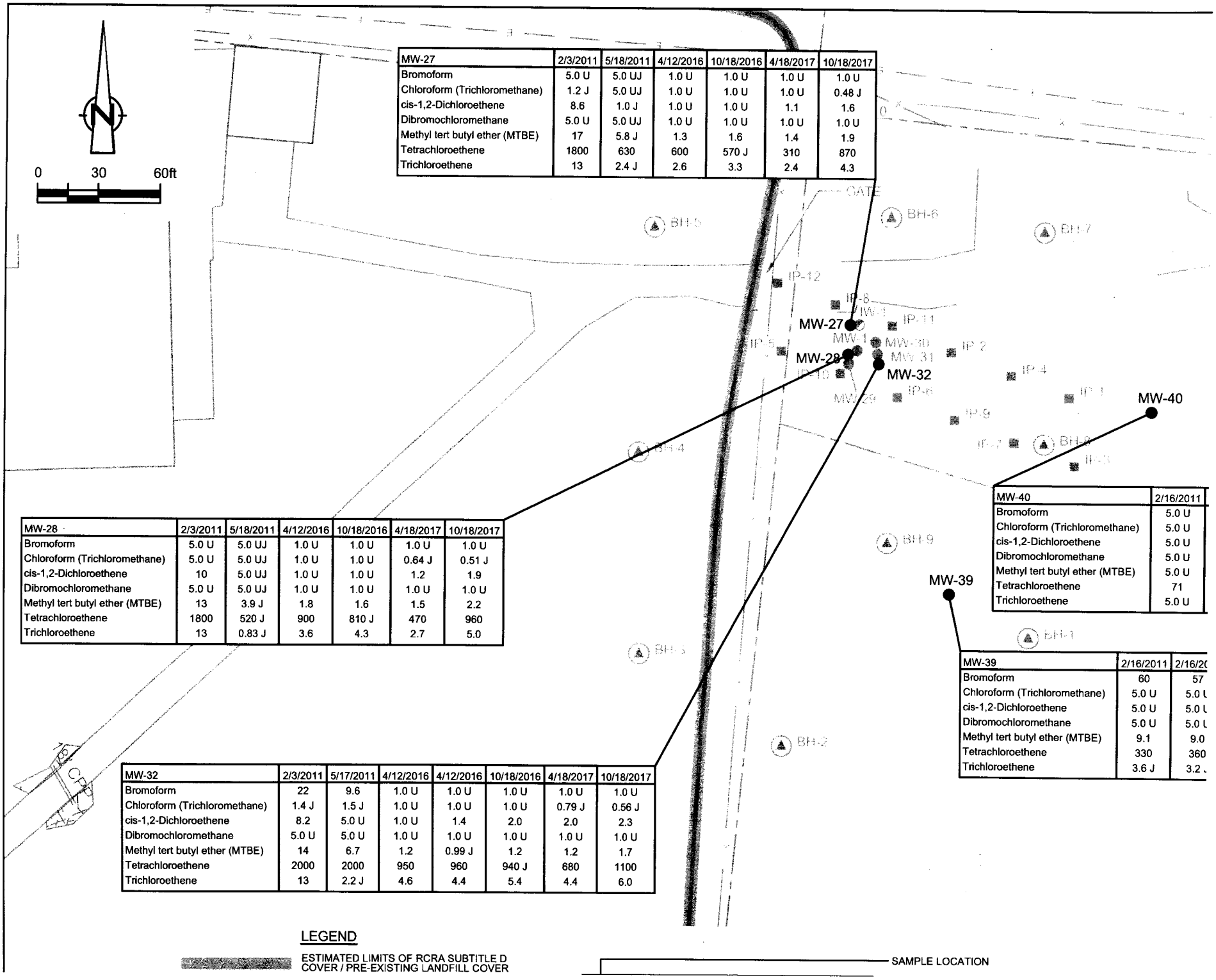
13926-25(JONE174)GN-WA001 NOV 3, 2017

GATE
MW-7A
MW-11A
MW-41
MW-13


825
820
815
810
805
800
795
790
785
780
775
770
MW-14
(827.28)
MW-5
(823.71)
MW-27
(793.98)
IW-1
(793.92)
MW-30
(793.53)
MW-1
(794.97)
MW-31
(793.56)
MW-28
(793.71)
MW-32
(793.43)
MW-29
(NM)
MW-15
(795.06)
MW-40
(791.33)
MW-39
(789.29)
TW-2
(821.84)
MW-7
(793.76)
MW-8
(784.84)
MW-18
(779.07)
MW-12
(798.21)
TW-4
(819.04)
IW-2
(784.91)
MW-38
(786.59)
MW-37
(784.66)
MW-11
(787.27)
MW-36
(784.45)
MW-33
(785.39)
MW-34
(783.99)
MW-35
(784.14)
MW-26
(NM)
MW-21
(Damaged)
MW-20
(798.20)
MW-9
(778.931)
MW-3
(777.53)
TW-3
(NM)
TW-1
(793.04)
MW-2
(774.36)
MW-16
(Not Found)
MW-42
(761.19)


GATE
MW-14
MW-7A
(796.80)
MW-8A
(785.62)
MW-18A
(DRY)
MW-9A
(779.11)
MW-2A
(776.12)
MW-41
(774.00)
MW-13
(767.06)
MW-10A
795
790
785
780
775
770


MW-8B
(788.36)
MW-11A
(792.60)
MW-9B
(777.98)
790
785
780



MW-27	2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
Bromoform	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	1.2 J	5.0 UJ	1.0 U	1.0 U	1.0 U	0.48 J
cis-1,2-Dichloroethene	8.6	1.0 J	1.0 U	1.0 U	1.1	1.6
Dibromochloromethane	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	17	5.8 J	1.3	1.6	1.4	1.9
Tetrachloroethene	1800	630	600	570 J	310	870
Trichloroethene	13	2.4 J	2.6	3.3	2.4	4.3

MW-28	2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
Bromoform	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	5.0 U	5.0 UJ	1.0 U	1.0 U	0.64 J	0.51 J
cis-1,2-Dichloroethene	10	5.0 UJ	1.0 U	1.0 U	1.2	1.9
Dibromochloromethane	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	13	3.9 J	1.8	1.6	1.5	2.2
Tetrachloroethene	1800	520 J	900	810 J	470	960
Trichloroethene	13	0.83 J	3.6	4.3	2.7	5.0

MW-32	2/3/2011	5/17/2011	4/12/2016	4/12/2016	10/18/2016	4/18/2017	10/18/2017
Bromoform	22	9.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	1.4 J	1.5 J	1.0 U	1.0 U	1.0 U	0.79 J	0.56 J
cis-1,2-Dichloroethene	8.2	5.0 U	1.0 U	1.4	2.0	2.0	2.3
Dibromochloromethane	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	14	6.7	1.2	0.99 J	1.2	1.2	1.7
Tetrachloroethene	2000	2000	950	960	940 J	680	1100
Trichloroethene	13	2.2 J	4.6	4.4	5.4	4.4	6.0

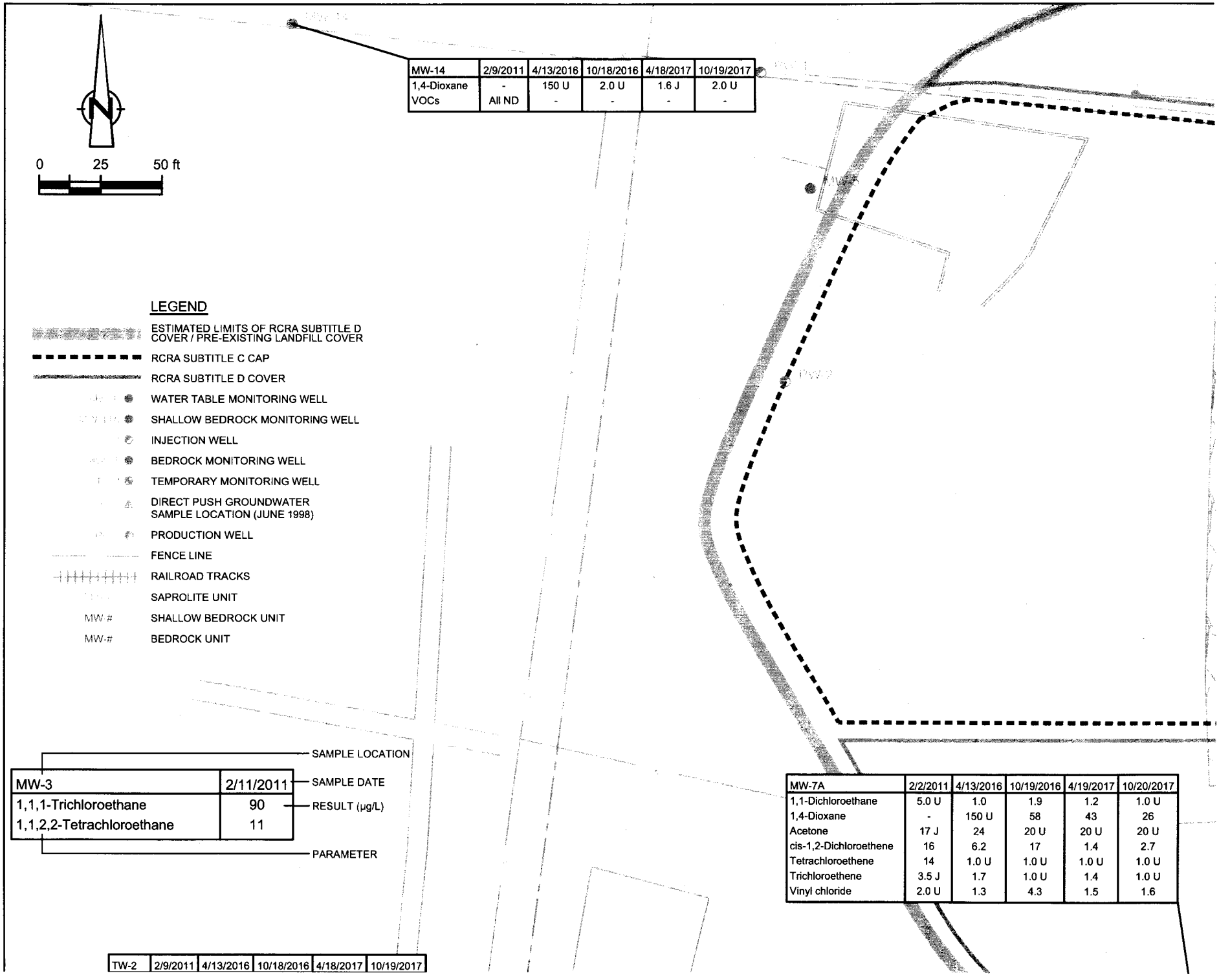
MW-40	2/16/2011
Bromoform	5.0 U
Chloroform (Trichloromethane)	5.0 U
cis-1,2-Dichloroethene	5.0 U
Dibromochloromethane	5.0 U
Methyl tert butyl ether (MTBE)	5.0 U
Tetrachloroethene	71
Trichloroethene	5.0 U

MW-39	2/16/2011	2/16/20
Bromoform	60	57
Chloroform (Trichloromethane)	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
Dibromochloromethane	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	9.1	9.0
Tetrachloroethene	330	360
Trichloroethene	3.6 J	3.2 J

LEGEND

ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER

SAMPLE LOCATION

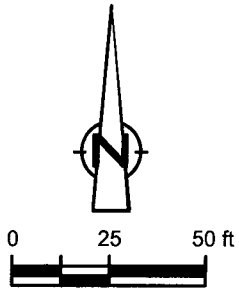


MW-14	2/9/2011	4/13/2016	10/18/2016	4/18/2017	10/19/2017
1,4-Dioxane	-	150 U	2.0 U	1.6 J	2.0 U
VOCs	All ND	-	-	-	-

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

MW-7A	2/2/2011	4/13/2016	10/19/2016	4/19/2017	10/20/2017
1,1-Dichloroethane	5.0 U	1.0	1.9	1.2	1.0 U
1,4-Dioxane	-	150 U	58	43	26
Acetone	17 J	24	20 U	20 U	20 U
cis-1,2-Dichloroethene	16	6.2	17	1.4	2.7
Tetrachloroethene	14	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	3.5 J	1.7	1.0 U	1.4	1.0 U
Vinyl chloride	2.0 U	1.3	4.3	1.5	1.6

TW-2	2/9/2011	4/13/2016	10/18/2016	4/18/2017	10/19/2017



MW-12	2/15/2011	2/15/2011	4/13/2016	10/18/2016	10/18/2016	4/18/2017	10/20/2017
1,1-Dichloroethane	3.2 J	3.3 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	-	-	150 U	13	13	12	9.5
cis-1,2-Dichloroethene	180	190	9.4	15	15	14	18
Tetrachloroethene	62	59	47	62	55	28	38
Trichloroethene	390	390	40	61	58	49	67
Vinyl chloride	2.1	2.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

LEGEND

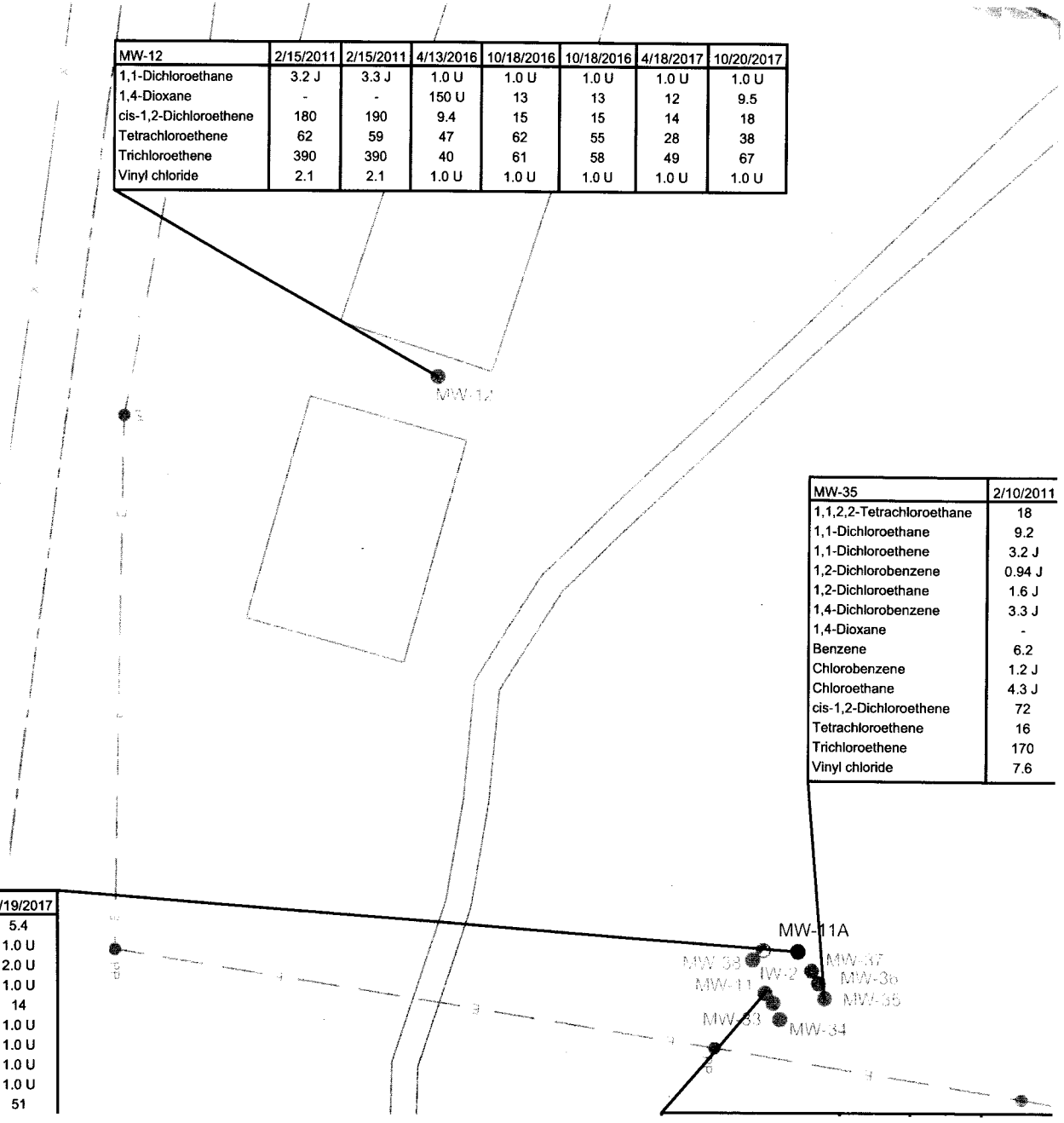
- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
- WATER TABLE MONITORING WELL
- SHALLOW BEDROCK MONITORING WELL
- INJECTION WELL
- BEDROCK MONITORING WELL
- TEMPORARY MONITORING WELL
- DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER

MW-35	2/10/2011
1,1,2,2-Tetrachloroethane	18
1,1-Dichloroethane	9.2
1,1-Dichloroethene	3.2 J
1,2-Dichlorobenzene	0.94 J
1,2-Dichloroethane	1.6 J
1,4-Dichlorobenzene	3.3 J
1,4-Dioxane	-
Benzene	6.2
Chlorobenzene	1.2 J
Chloroethane	4.3 J
cis-1,2-Dichloroethene	72
Tetrachloroethene	16
Trichloroethene	170
Vinyl chloride	7.6

MW-11A	2/10/2011	4/13/2016	10/19/2016	4/19/2017	10/19/2017
1,1,2,2-Tetrachloroethane	33	9.9	4.0	6.0	5.4
1,1-Dichloroethane	5.3	1.0 U	1.0 U	0.69 J	1.0 U
1,1-Dichloroethene	2.4 J	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	1.5 J	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	-	150 U	16	20	14
Benzene	0.65 J	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	0.71 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	2.3 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	1.1 J	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	160	42	37	39	51

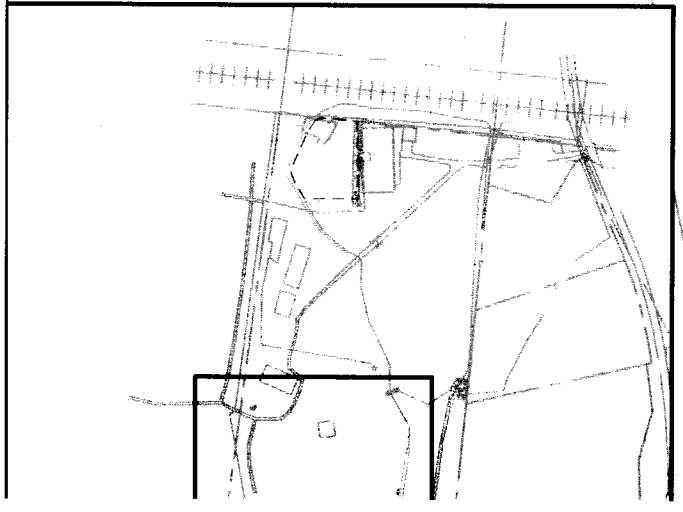


LEGEND

- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
- WATER TABLE MONITORING WELL
- SHALLOW BEDROCK MONITORING WELL
- INJECTION WELL
- BEDROCK MONITORING WELL
- TEMPORARY MONITORING WELL
- DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER



MW-41

MW-41	2/11/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
1,1,1-Trichloroethane	3.5 J	1.0 U	1.0 U	0.66 J	1.0 U
1,1,2,2-Tetrachloroethane	5.2	1.0 U	1.0 U	0.96 J	0.69 J
1,1-Dichloroethane	1.8 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	6.1	1.4 J	2.0 U	1.6 J	0.87 J
1,2-Dichloroethane	5.9	1.8	1.0 U	1.4	2.0
1,4-Dioxane	-	150 U	7.1	7.9	7.9
Chloroform (Trichloromethane)	5.9	1.8	1.0 U	1.5	1.1
cis-1,2-Dichloroethene	37	2.5	2.1	2.4	2.7
Tetrachloroethene	20	5.7	9.6	8.2	9.7
Toluene	1.0 J	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	47	7.9	8.7	7.5	9.0
Trichlorofluoromethane (CFC-11)	2.4 J	1.3	1.0 U	1.5	1.1

MW-3	2/11/2011	4/1
1,1,1-Trichloroethane	90	
1,1,2,2-Tetrachloroethane	11	
1,1,2-Trichloroethane	5.4	1
1,1-Dichloroethane	69	
1,1-Dichloroethene	15	
1,2,4-Trichlorobenzene	5.0 U	1
1,2-Dichlorobenzene	4.2 J	1
1,2-Dichloroethane	6.0	1
1,3-Dichlorobenzene	2.4 J	1
1,4-Dichlorobenzene	3.0 J	1
1,4-Dioxane	-	1
Benzene	11	1
Chlorobenzene	10	1
Chloroethane	5.6 J	1
Chloroform (Trichloromethane)	7.0	0
cis-1,2-Dichloroethene	310	
Methylene chloride	5.0 U	5
Tetrachloroethene	170	
trans-1,2-Dichloroethene	5.6	2
Trichloroethene	49	
Vinyl chloride	98	1

MW-13

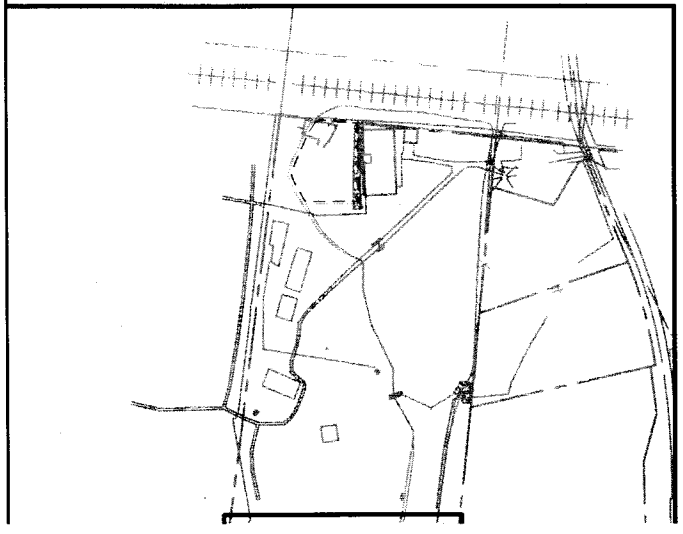
MW-13	2/9/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
1,1,1-Trichloroethane	1.4 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	12	4.2	2.9	5.6	6.2
1,1-Dichloroethane	15	2.3	4.9	7.3	7.7
1,1-Dichloroethene	13	1.8 J	4.3	6.8	7.7
1,2-Dichloroethane	0.88 J	1.0 U	1.0 U	1.0 U	0.56 J
1,4-Dioxane	-	150 U	42	56	66
Benzene	1.6 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	5.4	1.4	1.6	2.3	2.2
cis-1,2-Dichloroethene	270	69	93	130	130
Tetrachloroethene	61	27	46	35	46
trans-1,2-Dichloroethene	5.0 U	2.0 U	2.0 U	2.0 U	0.51 J
Trichloroethene	330	140	180	190	200
Trifluorotrichloroethane (CFC-113)	7.6 J	5.0 U	5.0 U	4.0 J	3.2 J
Vinyl chloride	4.2	1.0 U	1.0 U	1.1	0.80 J

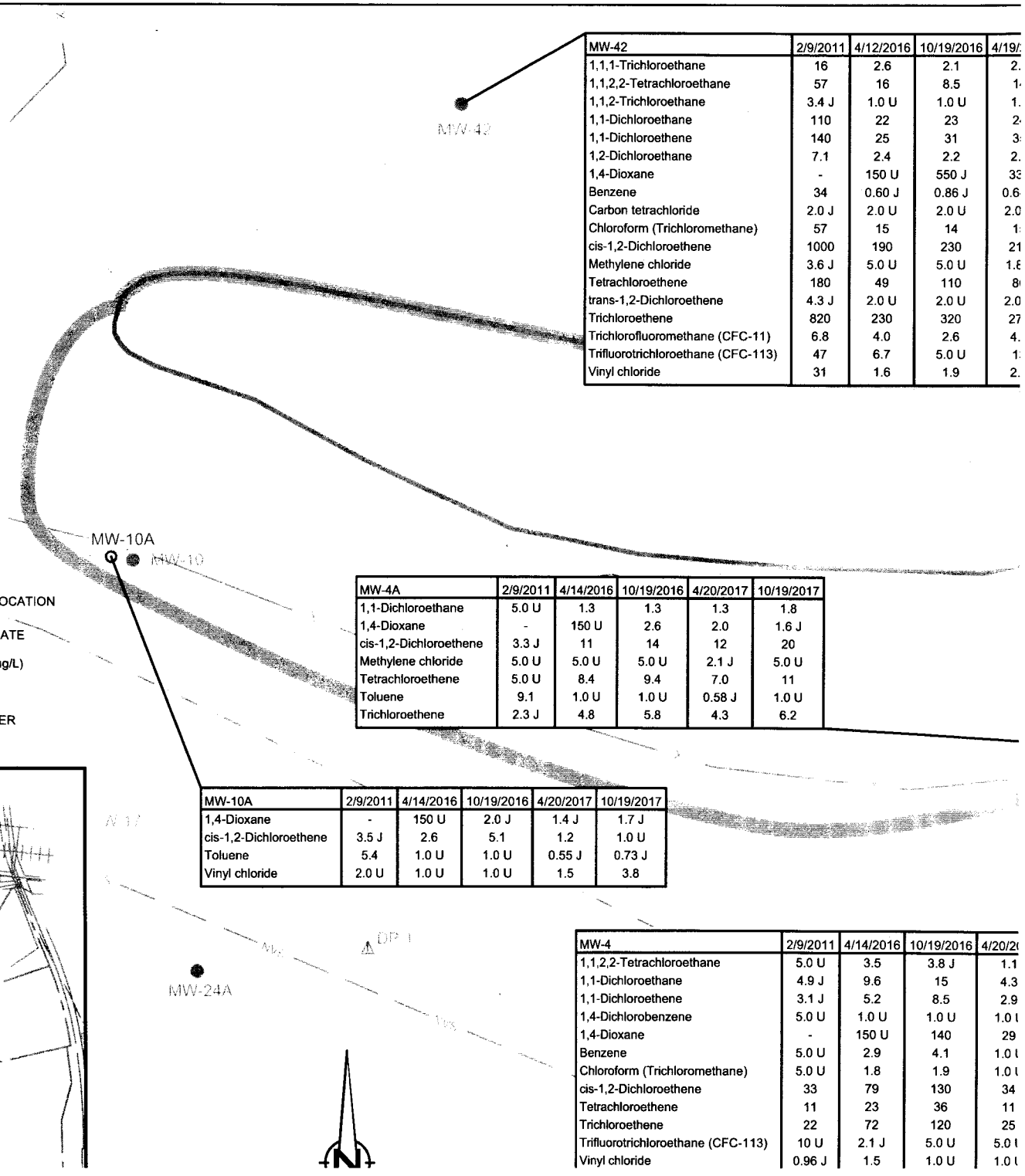
LEGEND

- ESTIMATED LIMITS OF RCRA SUBTITLE D COVER / PRE-EXISTING LANDFILL COVER
- RCRA SUBTITLE C CAP
- RCRA SUBTITLE D COVER
- WATER TABLE MONITORING WELL
- SHALLOW BEDROCK MONITORING WELL
- INJECTION WELL
- BEDROCK MONITORING WELL
- TEMPORARY MONITORING WELL
- DIRECT PUSH GROUNDWATER SAMPLE LOCATION (JUNE 1998)
- PRODUCTION WELL
- FENCE LINE
- RAILROAD TRACKS
- MW-# SAPROLITE UNIT
- MW-# SHALLOW BEDROCK UNIT
- MW-# BEDROCK UNIT

MW-3	2/11/2011
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	11

SAMPLE LOCATION
SAMPLE DATE
RESULT (µg/L)
PARAMETER



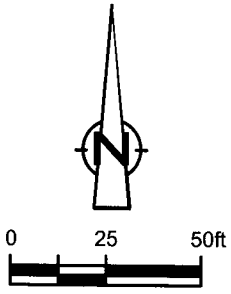


MW-42	2/9/2011	4/12/2016	10/19/2016	4/19/
1,1,1-Trichloroethane	16	2.6	2.1	2.
1,1,2,2-Tetrachloroethane	57	16	8.5	1
1,1,2-Trichloroethane	3.4 J	1.0 U	1.0 U	1.
1,1-Dichloroethane	110	22	23	2
1,1-Dichloroethene	140	25	31	3
1,2-Dichloroethane	7.1	2.4	2.2	2.
1,4-Dioxane	-	150 U	550 J	33
Benzene	34	0.60 J	0.86 J	0.6
Carbon tetrachloride	2.0 J	2.0 U	2.0 U	2.0
Chloroform (Trichloromethane)	57	15	14	1
cis-1,2-Dichloroethene	1000	190	230	21
Methylene chloride	3.6 J	5.0 U	5.0 U	1.8
Tetrachloroethene	180	49	110	8
trans-1,2-Dichloroethene	4.3 J	2.0 U	2.0 U	2.0
Trichloroethene	820	230	320	27
Trichlorofluoromethane (CFC-11)	6.8	4.0	2.6	4.
Trifluorotrichloroethane (CFC-113)	47	6.7	5.0 U	1
Vinyl chloride	31	1.6	1.9	2.

MW-4A	2/9/2011	4/14/2016	10/19/2016	4/20/2017	10/19/2017
1,1-Dichloroethane	5.0 U	1.3	1.3	1.3	1.8
1,4-Dioxane	-	150 U	2.6	2.0	1.6 J
cis-1,2-Dichloroethene	3.3 J	11	14	12	20
Methylene chloride	5.0 U	5.0 U	5.0 U	2.1 J	5.0 U
Tetrachloroethene	5.0 U	8.4	9.4	7.0	11
Toluene	9.1	1.0 U	1.0 U	0.58 J	1.0 U
Trichloroethene	2.3 J	4.8	5.8	4.3	6.2

MW-10A	2/9/2011	4/14/2016	10/19/2016	4/20/2017	10/19/2017
1,4-Dioxane	-	150 U	2.0 J	1.4 J	1.7 J
cis-1,2-Dichloroethene	3.5 J	2.6	5.1	1.2	1.0 U
Toluene	5.4	1.0 U	1.0 U	0.55 J	0.73 J
Vinyl chloride	2.0 U	1.0 U	1.0 U	1.5	3.8

MW-4	2/9/2011	4/14/2016	10/19/2016	4/20/2
1,1,2,2-Tetrachloroethane	5.0 U	3.5	3.8 J	1.1
1,1-Dichloroethane	4.9 J	9.6	15	4.3
1,1-Dichloroethene	3.1 J	5.2	8.5	2.9
1,4-Dichlorobenzene	5.0 U	1.0 U	1.0 U	1.0
1,4-Dioxane	-	150 U	140	29
Benzene	5.0 U	2.9	4.1	1.0
Chloroform (Trichloromethane)	5.0 U	1.8	1.9	1.0
cis-1,2-Dichloroethene	33	79	130	34
Tetrachloroethene	11	23	36	11
Trichloroethene	22	72	120	25
Trifluorotrichloroethane (CFC-113)	10 U	2.1 J	5.0 U	5.0
Vinyl chloride	0.96 J	1.5	1.0 U	1.0



LEGEND

- FENCE LINE
- SF — REGULAR SILT FENCE
- GRAVEL ACCESS PATH
- BUILDING STRUCTURE
- CONCRETE PAD
- RIP RAP
- STRAW EROSION CONTROL MAT
- COCONUT EROSION CONTROL MAT
- SVE WELLS
- ① HEADER NUMBER
- ON GRADE PIPING

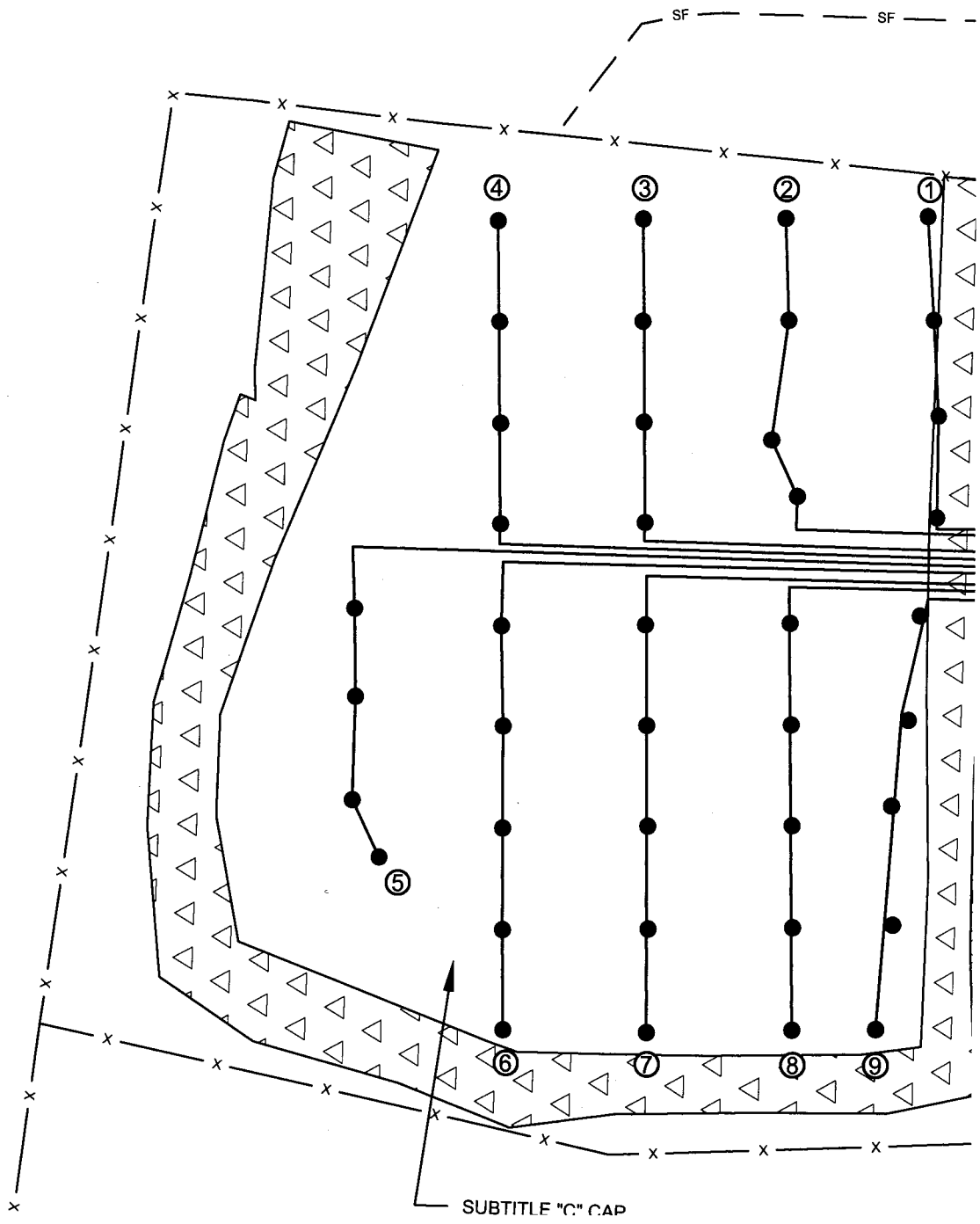
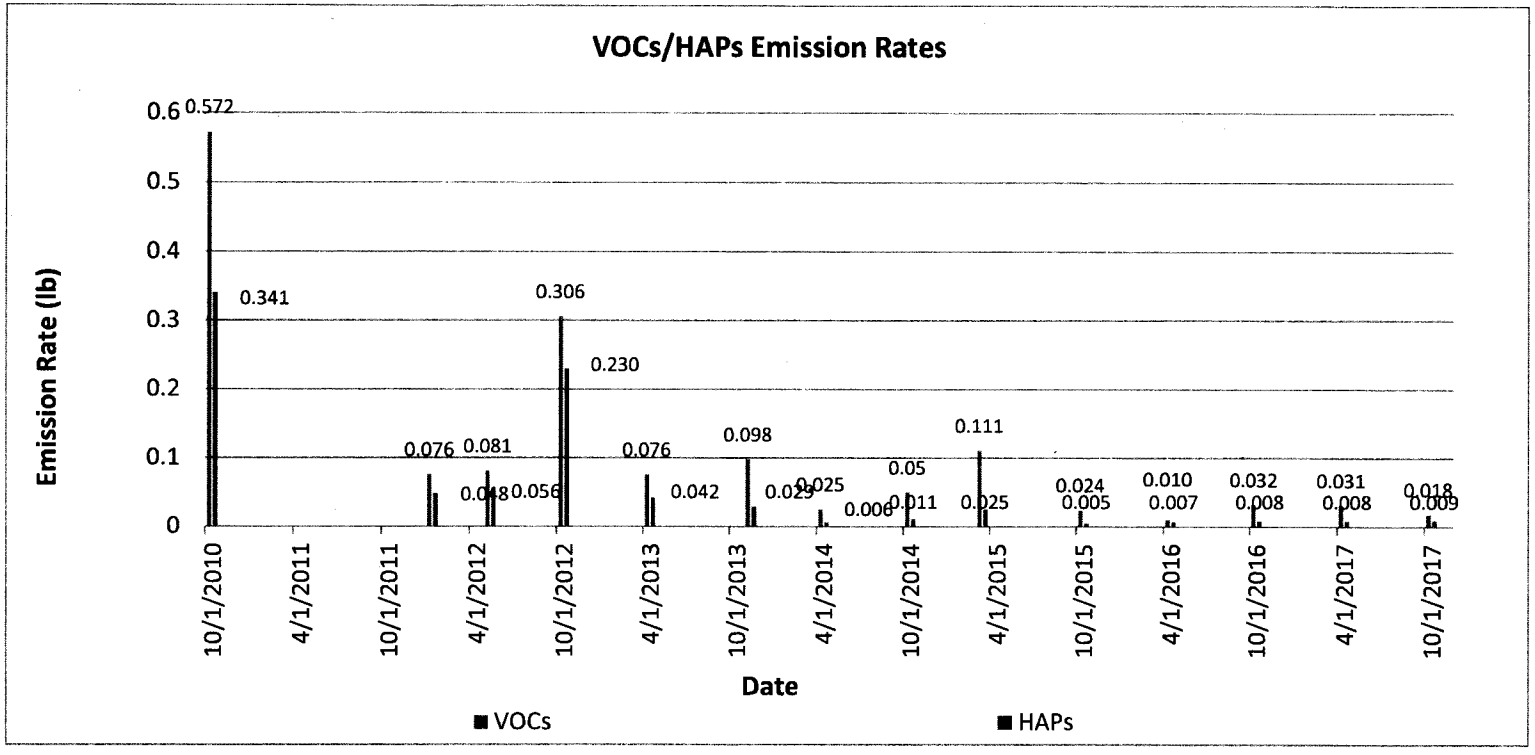


Figure 7



Note:

* All samples were collected pre-carbon except the October 2010 sample which was collected post-carbon filter

** THC as gas was inadvertently left out of the analysis list during the April 2016 event.

Tables

Table 1A

Groundwater Elevations - Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

Well	Unit	Reference Elevation	Depth to Groundwater (feet bTOC)	Groundwater Elevation (feet AMSL)
			October 17, 2017	
MW-1	Saprolite	832.82	37.85	794.97
MW-2	Saprolite	806.46	32.10	774.36
MW-3	Saprolite	821.18	43.65	777.53
MW-4	Saprolite	772.19	15.48	756.71
MW-5	Saprolite	845.93	22.22	823.71
MW-6	Saprolite	769.94	12.49	757.45
MW-7	Saprolite	826.01	32.25	793.76
MW-8	Saprolite	812.39	27.55	784.84
MW-9	Saprolite	806.19	27.26	
MW-10	Saprolite	768.22	Damaged	
MW-11	Saprolite	827.96	40.69	787.27
MW-12	Saprolite	832.55	34.34	798.21
MW-14	Saprolite	873.42	46.14	827.28
MW-15	Saprolite	837.68	42.62	795.06
MW-16	Saprolite	801.39	Not Found	
MW-17	Saprolite	768.73	Not Found	
MW-18	Saprolite	827.95	48.88	779.07
MW-19	Saprolite	763.12	6.68	756.44
MW-20	Saprolite	864.24	66.04	798.20
MW-21	Saprolite	812.48	Damaged	
MW-22	Saprolite	764.00	8.52	755.48
MW-23	Saprolite	762.91	10.46	752.45
MW-24	Saprolite	772.25	15.92	756.33
MW-26	Saprolite	813.22	NM	-
MW-27	Saprolite	831.09	37.11	793.98
MW-28	Saprolite	831.04	37.33	793.71
MW-29	Saprolite	830.50	NM	-
MW-30	Saprolite	832.08	38.55	793.53
MW-31	Saprolite	831.77	38.21	793.56
MW-32	Saprolite	831.45	38.02	793.43
MW-33	Saprolite	827.14	41.75	785.39
MW-34	Saprolite	827.00	43.01	783.99
MW-35	Saprolite	825.65	41.51	784.14
MW-36	Saprolite	825.70	41.25	784.45
MW-37	Saprolite	825.76	41.10	784.66
MW-38	Saprolite	826.89	40.30	786.59
MW-39	Saprolite	828.51	39.22	789.29
MW-40	Saprolite	835.78	44.45	791.33
MW-42	Saprolite	805.98	44.79	761.19
TW-1	Saprolite	857.44	64.40	793.04
TW-2	Saprolite	870.16	48.32	821.84
TW-3	Saprolite	863.50	NM	-
TW-4	Saprolite	865.66	46.62	819.04
IW-1	Saprolite	829.27	35.35	793.92
IW-2	Saprolite	824.44	39.53	784.91

Notes:

AMSL- Above Mean Sea Level
bTOC- Elevations are reported relative to NGVD
NM Not measured

Table 1B

Groundwater Elevations - Shallow Bedrock Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

Well	Unit	Reference Elevation	Depth to Groundwater (feet bTOC)	Groundwater Elevation (feet AMSL)
			October 17, 2017	
MW-2A	Shallow Bedrock	805.94	29.82	776.12
MW-7A	Shallow Bedrock	826.03	29.23	796.80
MW-8A	Shallow Bedrock	812.36	26.74	785.62
MW-9A	Shallow Bedrock	806.68	27.57	779.11
MW-10A	Shallow Bedrock	768.09	9.25	758.84
MW-13	Shallow Bedrock	828.91	61.85	767.06
MW-18A	Shallow Bedrock	827.86	DRY	-
MW-25	Shallow Bedrock	771.68	11.50	760.18
MW-41	Shallow Bedrock	849.20	75.20	774.00

Notes:

AMSL- Above Mean Sea Level
bTOC- Elevations are reported relative to NGVD

Table 1C

Groundwater Elevations - Bedrock Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

Well	Unit	Reference Elevation	Depth to Groundwater (feet bTOC)	Groundwater Elevation (feet AMSL)
			October 17, 2017	
MW-4A	Bedrock	769.40	12.36	757.04
MW-6A	Bedrock	770.15	Damaged	
MW-8B	Bedrock	812.31	23.95	788.36
MW-9B	Bedrock	805.73	27.75	777.98
MW-11A	Bedrock	827.33	34.73	792.60
MW-16A	Bedrock	800.85	Not Found	
MW-23A	Bedrock	763.64	7.73	755.91
MW-24A	Bedrock	771.38	11.17	760.21

Notes:

AMSL- Above Mean Sea Level
bTOC- Elevations are reported relative to NGVD

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Location ID:		MW-27	MW-27	MW-27	MW-27	MW-27	MW-27
Sample Name:		GW-020311-SAG-105	GW-051811-DJB-005	GW-013926-041216-SAG-101	GW-013926-101816-SAG-003	GW-013926-041817-SAG-001	GW-013926-101817-SDL-002
Sample Date:		2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	1.0 U	-	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	1.0 U	-	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	0.53 J	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L			150 U	2.0 U	1.0 J	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U
Acetone	ug/L	13 J	50 UJ	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	1.0 U	1.0 U	1.0 U	0.48 J
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	8.6	1.0 J	1.0 U	1.0 U	1.1	1.6
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	17	5.8 J	1.3	1.6	1.4	1.9
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**1800**	**630**	**600**	**570 J**	**310**	**870**
Toluene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	**13**	2.4 J	**2.6**	**3.3**	**2.4**	**4.3**
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Volatile Organic Compounds continued							
Vinyl chloride	ug/L	2.0 U	2.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27
	Sample Name:	GW-020311-SAG-105	GW-051811-DJB-005	GW-013926-041216-SAG-101	GW-013926-101816-SAG-003	GW-013926-041817-SAG-001	GW-013926-101817-SDL-002
	Sample Date:	2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
Parameters	**Units**						
Metals (Totals)							
Aluminum	mg/L	-	**1.72**	**11.7**	**4.59**	**1**	0.429
Antimony	mg/L	-	0.0053 J	0.000327 J	0.000256 J	0.000363 J	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.00596	0.00405 J	0.00361 J	0.00372 J
Barium	mg/L	0.314	0.284	0.388	0.179	0.112	0.0672
Beryllium	mg/L	-	0.0007 J	0.000763 J	0.000337 J	0.000215 J	0.001 U
Cadmium	mg/L	0.0050 U	0.0003 J	0.000535 J	0.000388 J	0.000457 J	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-		
Calcium	mg/L	-	31.1	1.92	1.49	1.95	1.42
Chromium	mg/L	0.0094 J	**0.0385**	**0.02**	0.00939	0.00438 J	0.00317 J
Cobalt	mg/L	-	0.0018 J	0.00483 J	0.00216 J	0.00156 J	0.000659 J
Copper	mg/L	0.0011 J	0.0100 U	0.00221	0.00201	0.00547	0.002 U
Iron	mg/L	**4.26**	**0.781**	**8.85**	**3.58**	**0.238**	**0.194**
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.1 U	0.1 U	0.1 U	0.1 U
Lead	mg/L	**0.221**	0.0100 U	0.00804	0.00328	0.00056 J	0.000287 J
Magnesium	mg/L	-	13.7	4.15	1.96	0.822	0.651
Manganese	mg/L	**0.637**	**0.661**	**0.754**	**0.276**	**0.319**	**0.0695**
Manganese (dissolved)	mg/L	**0.515**	**0.490**	0.00204 J	**0.026**	**0.0359**	**0.0099**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Nickel	mg/L	-	0.0018 J	0.0143	0.00613	0.00243 J	0.00159 J
Potassium	mg/L	-	8.83	3.88	2.1	1.28	0.898
Selenium	mg/L	0.0200 U	0.0200 U	0.000313 J	0.00026 J	0.000392 J	0.00036 J
Silver	mg/L	-	0.0100 U	0.000033 J	0.000022 J	0.001 U	0.001 U
Sodium	mg/L	-	**395**	**42.6**	**39.6**	**40.5**	**36.7**
Thallium	mg/L	-	0.0200 U	0.000234 J	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	-	0.0016 J	0.0776	0.0566	0.0427	0.0446
Zinc	mg/L	-	0.0186 J	0.0527	0.014	0.0266	0.00322 J
Wet Chemistry							
Ammonia	mg/L	-	0.194 J	0.020 U	0.045	0.033	0.020 U
Nitrate (as N)	mg/L	-	**5.41 J**	**5.8**	**5.0**	**4.8**	**5.2**
Orthophosphate	mg/L	-	0.0371 J	7.63	6.40	4.87	5.16
Sulfate	mg/L	**7.0**	**377**	**10**	**8.2**	**8.9**	**8.9**
Field Parameters							
pH	S.U	4.99	5.02	5.36	5.95	5.91	5.76
Dissolved Oxygen (DO)	mg/L	1.38	3.97	0.0	5.45	1.17	0.95
Oxidation-reduction potential (ORP)	mv	377	502	335	309	214	432

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Location ID:		MW-28	MW-28	MW-28	MW-28	MW-28	MW-28
Sample Name:		GW-020311-SAG-107	GW-051811-DJB-004	GW-013926-041216-MRB-001	GW-013926-101816-SAG-001	GW-013926-041817-SAG-002	GW-013926-101817-SDL-003
Sample Date:		2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	R	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L			150 U	2.0 U	0.60 J	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	2.9 J	20 U	20 U	20 U	4.2 J
Benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	0.64 J	0.51 J
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	10	5.0 UJ	1.0 U	1.0 U	1.2	1.9
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	13	3.9 J	1.8	1.6	1.5	2.2
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**1800**	520 J	**900**	**810 J**	**470**	**960**
Toluene	ug/L	5.0 U	R	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	**13**	0.83 J	**3.6**	**4.3**	**2.7**	**5.0**
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Volatile Organic Compounds continued							
Vinyl chloride	ug/L	2.0 U	2.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28
	Sample Name:	GW-020311-SAG-107	GW-051811-DJB-004	GW-013926-041216-MRB-001	GW-013926-101816-SAG-001	GW-013926-041817-SAG-002	GW-013926-101817-SDL-003
	Sample Date:	2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
Parameters	Units						
Metals (Totals)							
Aluminum	mg/L	-	**2.73**	**22.5**	**17.4**	**3.02**	**1.57**
Antimony	mg/L	-	0.0200 U	0.000222 J	0.005 U	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.00965	0.00781	0.00727	0.00715
Barium	mg/L	0.240	0.835	0.812	0.677	0.395	0.277
Beryllium	mg/L	-	0.0011 J	0.00146	0.00122	0.000636 J	0.001 U
Cadmium	mg/L	0.0050 U	0.0008 J	0.000212 J	0.000198 J	0.000156 J	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-		
Calcium	mg/L	-	80.9	1.95	1.69	1.53	1.28
Chromium	mg/L	0.0057 J	**0.0156**	**0.0384**	**0.0279**	0.0075	0.00515
Cobalt	mg/L	-	0.0023 J	0.00826	0.00618	0.00198 J	0.00131 J
Copper	mg/L	0.0100 U	0.0100 U	0.00452	0.00632	0.002 U	0.002 U
Iron	mg/L	**2.37**	**1.42**	17.7	13.8	1.34	0.714
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.1 U	0.1 U	0.1 U	0.1 U
Lead	mg/L	0.0013 J	0.0100 U	0.0159	0.0115	0.00149	0.000787 J
Magnesium	mg/L	-	36.7	8.29	6.2	0.819	0.518
Manganese	mg/L	**0.211**	**0.239**	**0.496**	**0.33**	**0.12**	0.0633
Manganese (dissolved)	mg/L	**0.180**	**0.137**	**0.00983**	**0.0198**	**0.0143**	0.00286 J
Mercury	mg/L	-	0.00004 J	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Nickel	mg/L	-	0.0057 J	0.0256	0.0193	0.00328 J	0.00166 J
Potassium	mg/L	-	8.61	7.04	5.5	1.54	1.2
Selenium	mg/L	0.0200 U	0.0200 U	0.000513 J	0.005 U	0.005 U	0.000562 J
Silver	mg/L	-	0.0100 U	0.000067 J	0.000044 J	0.001 U	0.001 U
Sodium	mg/L	-	**169**	**60.4**	**52.8**	**56.2**	48.7
Thallium	mg/L	-	0.0200 U	0.000456 J	0.000297 J	0.001 U	0.001 U
Vanadium	mg/L	-	0.0028 J	0.141	0.103	0.064	0.0501
Zinc	mg/L	-	0.0273	0.0692	0.035	0.0218	0.00513 J
Wet Chemistry							
Ammonia	mg/L	-	0.200 U	0.020 U	0.020 U	0.020 U	0.020 U
Nitrate (as N)	mg/L	-	**3.24**	**5.4**	**4.7**	**5.2**	**3.3**
Orthophosphate	mg/L	-	0.0105 UJ	13.8	12.0	11.3	8.99
Sulfate	mg/L	**4.2**	**77.5**	**13**	**18**	**9.5**	**6.2**
Field Parameters							
pH	S.U	5.21	4.65	6.05	6.16	6.0	5.73
Dissolved Oxygen (DO)	mg/L	1.54	1.14	5.32	2.59	1.28	3.26
Oxidation-reduction potential (ORP)	mv	395	532	239	302	227	435

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Location ID:		MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
Sample Name:		GW-020311-EAH-008	GW-051711-DJB-003	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-101816-SAG-002	GW-013926-041817-SAG-003	GW-013926-101817-SDL-001
Sample Date:		2/3/2011	5/17/2011	4/12/2016	4/12/2016	10/18/2016	4/18/2017	10/18/2017
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
Parameters	Units				Duplicate			
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L			150 U	150 U	2.0 U	0.94 J	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	22	9.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	4.8 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	1.0 U	1.0 U	1.0 U	0.79 J	0.56 J
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	8.2	5.0 U	1.0 U	1.4	2.0	2.0	2.3
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	14	6.7	1.2	0.99 J	1.2	1.2	1.7
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**2000**	**2000**	**950**	**960**	**940 J**	**680**	**1100**
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	**13**	2.2 J	4.6	4.4	5.4	4.4	6.0
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Volatile Organic Compounds continued								
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
Location ID:		MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
Sample Name:		GW-020311-EAH-008	GW-051711-DJB-003	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-101816-SAG-002	GW-013926-041817-SAG-003	GW-013926-101817-SDL-001
Sample Date:		2/3/2011	5/17/2011	4/12/2016	4/12/2016	10/18/2016	4/18/2017	10/18/2017
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
					Duplicate			
Metals (Totals)								
Aluminum	mg/L	-	**7.99**	1.2	1.32	**7.64**	**0.522**	**0.267**
Antimony	mg/L	-	0.0024 J	0.00017 J	0.000154 J	0.005 U	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.000532 J	0.000532 J	0.00114 J	0.000511 J	0.005 U
Barium	mg/L	0.294	0.533	0.0883	0.0947	0.284	0.0899	0.0705
Beryllium	mg/L	-	0.0012 J	0.000197 J	0.000221 J	0.00103	0.000176 J	0.001 U
Cadmium	mg/L	0.0050 U	0.0050 U	0.0007 U	0.0007 U	0.000221 J	0.0007 U	0.000162 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-		
Calcium	mg/L	-	90.1	2.83	2.58	3	2.85	2.56
Chromium	mg/L	**0.0427**	**0.0332**	0.00957	0.0107	0.0208	0.00712	0.00481 J
Cobalt	mg/L	-	0.0049 J	0.000848 J	0.000921 J	0.00349 J	0.00112 J	0.00059 J
Copper	mg/L	0.0071 J	0.0088 J	0.00196 J	0.00148 J	0.00766	0.002 U	0.00113 J
Iron	mg/L	**11.4**	**13.1**	1.77	1.95	**9.85**	**0.559**	**0.273**
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.1 U	0.1 U	0.0342 J	0.1 U	0.1 U
Lead	mg/L	0.0043 J	0.0053 J	0.0013	0.00136	0.0073	0.00069 J	0.000448 J
Magnesium	mg/L	-	35.3	1.12	1.19	2.36	1.12	0.792
Manganese	mg/L	**0.175**	**0.143**	0.0178	0.0202	**0.0892**	**0.0229**	**0.0109**
Manganese (dissolved)	mg/L	**0.0368**	0.0150 U	0.00268 J	0.00421 J	**0.0112**	**0.00865**	**0.00251 J**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00008 J	0.00007 J	0.00020 U	0.00020 U
Nickel	mg/L	-	0.0083 J	0.00249 J	0.00262 J	0.00709	0.00138 J	0.00124 J
Potassium	mg/L	-	8.48	1.48	1.56	2.59	1.44	1.27
Selenium	mg/L	0.0200 U	0.0200 U	0.000638 J	0.000423 J	0.000166 J	0.005 U	0.000476 J
Silver	mg/L	-	0.0100 U	0.000051 J	0.000042 J	0.000162 J	0.001 U	0.0000212 J
Sodium	mg/L	-	**83.9**	**27.5**	**29.1**	**26.5**	**27.3**	28.8
Thallium	mg/L	-	0.0200 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vanadium	mg/L	-	0.0324	0.00668	0.0075	0.0258	0.00408 J	0.00629 U
Zinc	mg/L	-	0.0408	0.0272 J	0.0117 J	0.0182	0.0186	0.0033 J
Wet Chemistry								
Ammonia	mg/L	-	0.200 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Nitrate (as N)	mg/L	-	2.46	5.4	5.4	4.9	5.3	5.5
Orthophosphate	mg/L	-	0.0771 J	0.692	0.760	1.43	1.49	1.60
Sulfate	mg/L	**160**	**84.1**	**9.2**	**10**	**10**	**9.9**	**8.7**
Field Parameters								
pH	S.U	4.98	5.9	-	5.71	5.70	5.61	5.24
Dissolved Oxygen (DO)	mg/L	6.31	4.86	-	4.50	3.14	3.36	4.28
Oxidation-reduction potential (ORP)	mv	363	478	-	195	298	194	460

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39
Location ID:		MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39
Sample Name:		GW-021611-DJB-216	GW-021611-DJB-217	GW-051711-DJB-002	GW-013926-041216-MRB-004	GW-013926-101816-SAG-006	GW-013926-041817-SAG-004	GW-013926-101917-SDL-005
Sample Date:		2/16/2011	2/16/2011	5/17/2011	4/12/2016	10/18/2016	4/18/2017	10/19/2017
Performance Event:		Pre-injection	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
			Duplicate					
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L				150 U	2.0 U	2.0 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	**60**	**57**	**220**	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	9.1	9.0	11	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**330**	**360**	**220**	**35**	**45**	**64**	**79**
Toluene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	3.6 J	3.2 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Volatile Organic Compounds continued								
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39
Location ID:		MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39
Sample Name:		GW-021611-DJB-216	GW-021611-DJB-217	GW-051711-DJB-002	GW-013926-041216-MRB-004	GW-013926-101816-SAG-006	GW-013926-041817-SAG-004	GW-013926-101917-SDL-005
Sample Date:		2/16/2011	2/16/2011	5/17/2011	4/12/2016	10/18/2016	4/18/2017	10/19/2017
Performance Event:		Pre-injection	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
			Duplicate					
Metals (Totals)								
Aluminum	mg/L	-	-	**1.33**	**1.86**	**5.81**	**0.634**	0.0904
Antimony	mg/L	-	-	0.0200 U	0.000238 J	0.000461 J	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.000219 J	0.000338 J	0.005 U	0.005 U
Barium	mg/L	0.193	0.190	0.345	0.213	0.213	0.247	0.234
Beryllium	mg/L	-	-	0.0004 J	0.000495 J	0.000671 J	0.000385 J	0.000323 J
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0007 U	0.000262 J	0.0012	0.000772
Cadmium (dissolved)	mg/L	0.0001 J	0.0050 U	-	-	-		
Calcium	mg/L	-	-	1.80	1.03	0.818	0.933	0.778
Chromium	mg/L	0.0008 J	0.0009 J	0.0013 J	**0.00629**	**0.0083**	**0.00365 J**	0.005 U
Cobalt	mg/L	-	-	0.0073 J	0.00383 J	0.00345 J	0.00335 J	0.00334 J
Copper	mg/L	0.0010 J	0.0488	0.0012 J	0.00143 J	0.00293	0.00573	0.002 U
Iron	mg/L	-	-	**0.835**	**1.87**	**3.71**	**0.447**	0.0444 J
Iron (dissolved)	mg/L	-	-	0.100 U	0.1 U	0.1 U	0.1 U	0.1 U
Lead	mg/L	0.0100 U	0.0100 U	0.0027 J	0.00703	0.0184	0.00198	0.001 U
Magnesium	mg/L	-	-	4.03	3.26	2.55	3.09	3.24
Manganese	mg/L	-	-	**0.0939**	**0.048**	**0.0516**	**0.0305**	0.00955
Manganese (dissolved)	mg/L	-	-	**0.0855**	**0.0323**	**0.0302**	**0.0236**	0.00923
Mercury	mg/L	-	-	0.00020 U	0.00007 J	0.00020 U	0.00020 U	0.00020 U
Nickel	mg/L	-	-	0.0010 J	0.00242 J	0.00258 J	0.00194 J	0.005 U
Potassium	mg/L	-	-	4.55	3.78	3.39	3.51	3.22
Selenium	mg/L	0.0200 U	0.0200 U	0.0045 J	0.000164 J	0.005 U	0.005 U	0.005 U
Silver	mg/L	-	-	0.0100 U	0.000054 J	0.000163 J	0.001 U	0.001 U
Sodium	mg/L	-	-	**9.42**	**18.2**	**11.4**	**9.86**	7.79
Thallium	mg/L	-	-	0.0200 U	0.000177 J	0.000183 J	0.001 U	0.001 U
Vanadium	mg/L	-	-	0.0011 J	0.00362 J	0.00482 J	0.005 U	0.005 U
Zinc	mg/L	-	-	0.0115 J	0.0202	0.0133	0.0285	0.00657 J
Wet Chemistry								
Ammonia	mg/L	-	-	0.200 U	0.020 U	0.020 U	0.020 U	0.020 U
Nitrate (as N)	mg/L	-	-	5.06	4.2	3.0	4.6	5.1
Orthophosphate	mg/L	-	-	0.0112 J	0.0316	0.0379	0.0351	0.0193
Sulfate	mg/L	**1.2**	**1.1**	1.43 U	**22**	**11**	**5.9**	2.1
Field Parameters								
pH	S.U	4.24	4.24	5.67	4.59	4.90	4.71	4.47
Dissolved Oxygen (DO)	mg/L	5.23	5.23	5.73	4.07	3.98	5.64	13.21
Oxidation-reduction potential (ORP)	mv	328	328	403	305	317	292	466

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

Parameters	Units	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40
Location ID:		MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40
Sample Name:		GW-021611-DJB-218	GW-051711-DJB-001	GW-013926-041216-MRB-005	GW-013926-101816-SAG-004	GW-013926-101816-SAG-005	GW-013926-041817-SAG-005	GW-013926-101817-SDL-004
Sample Date:		2/16/2011	5/17/2011	4/12/2016	10/18/2016	10/18/2016	4/18/2017	10/18/2017
Performance Event:		Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
						Duplicate		
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L			150 U	2.0 U	2.0 U	0.57 J	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	3.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**71**	**54**	**14**	**15**	**9.9**	**8.4**	**12**
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Volatile Organic Compounds continued								
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Summaries of Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Environmental, Inc.
Greer, Spartanburg County, South Carolina

	Location ID:	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40
	Sample Name:	GW-021611-DJB-218	GW-051711-DJB-001	GW-013926-041216-MRB-005	GW-013926-101816-SAG-004	GW-013926-101816-SAG-005	GW-013926-041817-SAG-005	GW-013926-101817-SDL-004
	Sample Date:	2/16/2011	5/17/2011	4/12/2016	10/18/2016	10/18/2016	4/18/2017	10/18/2017
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection
Parameters	Units					Duplicate		
Metals (Totals)								
Aluminum	mg/L	-	**6.04**	**0.847**	**0.303**	**0.307**	**0.172**	**0.363**
Antimony	mg/L	-	0.0020 J	0.000255 J	0.005 U	0.005 U	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.000206 J	0.005 U	0.005 U	0.000329 J	0.005 U
Barium	mg/L	0.198	0.230	0.182	0.17	0.17	0.176	0.197
Beryllium	mg/L	-	0.0005 J	0.000304 J	0.000283 J	0.00031 J	0.000296 J	0.001 U
Cadmium	mg/L	0.0003 J	0.0016 J	0.000602 J	0.000464 J	0.000475 J	0.00101	0.000529 J
Cadmium (dissolved)	mg/L	0.0006 J	-	-	-	-		
Calcium	mg/L	-	1.79	1.33	1.13	1.18	1.2	1.19
Chromium	mg/L	0.0017 J	0.0018 J	0.000951 J	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	mg/L	-	0.0401	0.0116	0.00687	0.00685	0.00792	0.00838
Copper	mg/L	0.0010 J	0.0019 J	0.00184 J	0.000606 J	0.00141 J	0.00252	0.002 U
Iron	mg/L	-	**2.79**	**0.643**	**0.201**	**0.194**	**0.08 J**	**0.19**
Iron (dissolved)	mg/L	-	**0.620**	0.1 U	0.0399 J	0.1 U	0.1 U	0.1 U
Lead	mg/L	0.0100 U	0.0136	0.00297	0.00112	0.00117	0.00116	0.00224
Magnesium	mg/L	-	3.61	2.41	2.23	2.2	2.27	2.22
Manganese	mg/L	-	**1.53**	**0.655**	**0.419**	**0.421**	**0.514**	**0.493**
Manganese (dissolved)	mg/L	-	**1.58**	**0.634**	**0.42**	**0.442**	**0.452**	**0.403**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Nickel	mg/L	-	0.0083 J	0.00555	0.00423 J	0.00425 J	0.0048 J	0.00436 J
Potassium	mg/L	-	6.63	4.67	4.27	4.37	4.57	4.5
Selenium	mg/L	0.0200 U	0.0044 J	0.000906 J	0.000508 J	0.000572 J	0.000617 J	0.000825 J
Silver	mg/L	-	0.0100 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Sodium	mg/L	-	**8.23**	**6.38**	**5.35**	**5.41**	**6.86**	**7.06**
Thallium	mg/L	-	0.0022 J	0.000631 J	0.000573 J	0.000578 J	0.00051 J	0.000477 J
Vanadium	mg/L	-	0.0022 J	0.000813 J	0.005 U	0.00167 J	0.005 U	0.005 U
Zinc	mg/L	-	0.0273	0.027	0.01	0.0101	0.0358	0.0118
Wet Chemistry								
Ammonia	mg/L	-	0.200 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Nitrate (as N)	mg/L	-	2.87	2.9	1.6	1.6	2.4	0.81
Orthophosphate	mg/L	-	0.0100 UJ	0.0100 U	0.0100 U	0.00602 J	0.00647 J	0.0120
Sulfate	mg/L	**16**	**13.6**	**10**	**7.8**	**7.4**	**7.7**	**1.8**
Field Parameters								
pH	S.U	4.14	5.91	4.28	4.93	-	4.81	5.11
Dissolved Oxygen (DO)	mg/L	3.9	3.85	3.09	2.49	-	4.46	3.64
Oxidation-reduction potential (ORP)	mv	294	177	324	371	-	320	436

Notes:

U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

	Location ID:	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	Percent
	Sample Name:	GW-020311-SAG-105	GW-051811-DJB-005	GW-013926-041216-SAG-101	GW-013926-101816-SAG-003	GW-013926-041817-SAG-001	GW-013926-101817-SDL-002	removal
	Sample Date:	2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017	
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection	(%)
Parameters	**Units**							
Volatile Organic Compounds								
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	1.0 U	1.0 U	1.0 U	**0.48 J**	
cis-1,2-Dichloroethene	ug/L	**8.6**	1.0 J	1.0 U	1.0 U	**1.1**	**1.6**	81
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	**17**	5.8 J	**1.3**	**1.6**	**1.4**	**1.9**	89
Tetrachloroethene	ug/L	**1800**	**630**	**600**	**570 J**	**310**	**870**	52
Trichloroethene	ug/L	**13**	2.4 J	**2.6**	**3.3**	**2.4**	**4.3**	67
Sodium	mg/L	-	**395**	**42.6**	**39.6**	-	**36.7**	
Sulfate	mg/L	**7.0**	**377**	**10**	**8.2**	**8.9**	**8.9**	
Field Parameters								
pH	S.U	4.99	5.02	5.36	5.95	5.91	5.76	
Dissolved Oxygen (DO)	mg/L	1.38	3.97	0	5.45	1.17	0.95	
Oxidation-reduction potential (ORP)	mv	377	502	335	309	214	432	

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

	Location ID:	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	Percent
	Sample Name:	GW-020311-SAG-107	GW-051811-DJB-004	GW-013926-041216-MRB-001	GW-013926-101816-SAG-001	GW-013926-041817-SAG-002	GW-013926-101817-SDL-003	removal
	Sample Date:	2/3/2011	5/18/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017	
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection	(%)
Parameters	**Units**							
Volatile Organic Compounds								
Bromoform	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	0.64 J	**0.51 J**	
cis-1,2-Dichloroethene	ug/L	**10**	5.0 UJ	1.0 U	1.0 U	**1.2**	**1.9**	81
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	**13**	3.9 J	**1.8**	**1.6**	**1.5**	**2.2**	83
Tetrachloroethene	ug/L	**1800**	**520 J**	**900**	**810 J**	**470**	**960**	47
Trichloroethene	ug/L	**13**	0.83 J	**3.6**	**4.3**	**2.7**	**5.0**	62
Sodium	mg/L	-	**169**	**60.4**	**52.8**	-	**48.7**	
Sulfate	mg/L	**4.2**	**77.5**	**13**	**18**	**9.5**	**6.2**	
Field Parameters								
pH	S.U	5.21	4.65	6.05	6.16	6	5.73	
Dissolved Oxygen (DO)	mg/L	1.54	1.14	5.32	2.59	1.28	3.26	
Oxidation-reduction potential (ORP)	mv	395	532	239	302	227	435	

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

	Location ID:	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	Percent
	Sample Name:	GW-020311-EAH-008	GW-051711-DJB-003	GW-013926-041216-MRB-002	GW-013926-041216-MRB-003	GW-013926-101816-SAG-002	GW-013926-041817-SAG-003	GW-013926-101817-SDL-001	removal
	Sample Date:	2/3/2011	5/17/2011	4/12/2016	4/12/2016	10/18/2016	4/18/2017	10/18/2017	
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection	(%)
Parameters	**Units**				Duplicate				
Volatile Organic Compounds									
Bromoform	ug/L	**22**	**9.6**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	1.0 U	1.0 U	1.0 U	0.79 J	**0.56 J**	
cis-1,2-Dichloroethene	ug/L	**8.2**	5.0 U	1.0 U	**1.4**	**2.0**	**2.0**	**2.3**	72
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	**14**	**6.7**	**1.2**	0.99 J	**1.2**	1.2	**1.7**	88
Tetrachloroethene	ug/L	**2000**	**2000**	**950**	**960**	**940 J**	**680**	**1100**	45
Trichloroethene	ug/L	**13**	**2.2 J**	**4.6**	**4.4**	**5.4**	**4.4**	**6.0**	54
Sodium	mg/L	-	**83.9**	**27.5**	**29.1**	**26.5**	**27.3**	**28.8**	
Sulfate	mg/L	**160**	**84.1**	**9.2**	**10**	**10**	9.9	**8.7**	
Field Parameters									
pH	S.U	4.98	5.90	5.71	-	5.70	5.61	5.24	
Dissolved Oxygen (DO)	mg/L	6.31	4.86	4.5	-	3.14	3.36	4.28	
Oxidation-reduction potential (ORP)	mv	363	478	195	-	298	194	460	

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

	Location ID:	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	Percent
	Sample Name:	GW-021611-DJB-216	GW-021611-DJB-217	GW-051711-DJB-002	GW-013926-041216-MRB-004	GW-013926-101816-SAG-006	GW-013926-041817-SAG-004	GW-013926-101917-SDL-005	removal
	Sample Date:	2/16/2011	2/16/2011	5/17/2011	4/12/2016	10/18/2016	4/18/2017	10/19/2017	
	Performance Event:	Pre-injection	(DUP) Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection	(%)
Parameters	**Units**								
Volatile Organic Compounds									
Bromoform	ug/L	**60**	**57**	**220**	1.0 U	1.0 U	1.0 U	1.0 U	100
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	**9.1**	**9.0**	**11**	1.0 U	1.0 U	1.0 U	1.0 U	100
Tetrachloroethene	ug/L	**330**	**360**	**220**	**94**	**45**	**64**	**79**	76
Trichloroethene	ug/L	**3.6 J**	**3.2 J**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	100
Sodium	mg/L	-	-	**9.42**	**13.7**	**11.4**	-	**7.79**	
Sulfate	mg/L	**1.2**	**1.1**	1.43 U	**13**	**11**	**5.9**	**2.1**	
Field Parameters									
pH	S.U	4.24	4.24	5.67	4.59	4.9	4.71	4.47	4.41
Dissolved Oxygen (DO)	mg/L	5.23	5.23	5.73	4.07	3.98	5.64	13.21	3.90
Oxidation-reduction potential (ORP)	mv	328	328	403	305	317	292	466	294

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 3

Comparison of Groundwater Analytical Results
Pre- and Post-ISCO Groundwater Monitoring
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

	Location ID:	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	Percent
	Sample Name:	GW-021611-DJB-218	GW-051711-DJB-001	GW-013926-041216-MRB-005	GW-013926-101816-SAG-004	GW-013926-101816-SAG-005	GW-013926-041817-SAG-005	GW-013926-101817-SDL-004	removal
	Sample Date:	2/16/2011	5/17/2011	4/12/2016	10/18/2016	10/18/2016	4/18/2017	10/18/2017	
	Performance Event:	Pre-injection	1st Post-injection	12th Post-injection	13th Post-injection	13th Post-injection	14th Post-injection	15th Post-injection	
Parameters	**Units**					Duplicate			(%)
Volatile Organic Compounds									
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	5.0 U	3.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**71**	**54**	**14**	**15**	**9.9**	**8.4**	**12**	83
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Sodium	mg/L	-	**8.23**	**6.38**	**5.35**	**5.41**	-	**7.06**	
Sulfate	mg/L	**16**	**13.6**	**10**	**7.8**	**7.4**	**7.7**	**1.8**	
Field Parameters									
pH	S.U	-	5.91	4.28	4.93	-	4.81	5.11	
Dissolved Oxygen (DO)	mg/L	-	3.85	3.09	2.49	-	4.46	3.64	
Oxidation-reduction potential (ORP)	mv	-	177	324	371	-	320	436	

Notes:

ug/L - micrograms per liter
mg/L - milligrams per liter
U - Non-detect at associated value
J - Estimated
R - Rejected
UJ - Not detected, estimated reporting limit
100 - Concentration decreased by percentile shown compared to pre-injection data

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
Sample ID:		GW-021110-EAH-023	GW-101211-SAG-009	GW-013926-041316-MRB-010	GW-013926-101916-DJB-107	GW-013926-041917-DJB-108	GW-013926-102017-DJB-111	GW-013926-102017-DJB-112
Sample Date:		2/11/2011	10/12/2011	4/13/2016	10/19/2016	4/19/2017	10/20/2017	10/20/2017
Parameters	Units							Duplicate
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	90	260	24	53	54	75	77
1,1,2,2-Tetrachloroethane	ug/L	11	4.0 J	2.0	14	29	34	31
1,1,2-Trichloroethane	ug/L	5.4	6.6	1.0 U	4.4	3.5	5.8	5.6
1,1-Dichloroethane	ug/L	69	84	5.6	15	14	23	24
1,1-Dichloroethene	ug/L	15	21	1.7 J	6.7	6.8	11	11
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	2.7	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	4.2 J	1.8 J	1.0 U	4.2	2.4	3.3	3.0
1,2-Dichloroethane	ug/L	6.0	2.7 J	1.0 U	3.2	2.1	3.8	3.3
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	--	--
1,3-Dichlorobenzene	ug/L	2.4 J	1.2 J	1.0 U	2.5	1.3	1.9	1.9
1,4-Dichlorobenzene	ug/L	3.0 J	1.3 J	1.0 U	3.0	2.0	2.5	2.5
1,4-Dioxane	ug/L		-	150 U	340 J	180	180	200
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	11	4.6 J	1.0 U	3.4	2.2	2.7	2.5
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	10	3.7 J	1.0 U	11	6.4	7.9	7.6
Chloroethane	ug/L	5.6 J	2.8 J	1.0 U	3.2	1.8	3.7	3.8
Chloroform (Trichloromethane)	ug/L	7.0	5.0 J	0.97 J	5.1	5.9	7.6	7.0
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	310	130	12	320	250	340	340
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	1.3 J	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	170	440	83	170	160	220	150
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.6	5.0 U	2.0 U	4.8	3.2	5.6	5.1
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	49	99	15	42	36	46	44
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	98	25	1.0 U	44	30	40	39
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-3 GW-021110-EAH-023 2/11/2011	MW-3 GW-101211-SAG-009 10/12/2011	MW-3 GW-013926-041316-MRB-010 4/13/2016	MW-3 GW-013926-101916-DJB-107 10/19/2016	MW-3 GW-013926-041917-DJB-108 4/19/2017	MW-3 GW-013926-102017-DJB-111 10/20/2017	MW-3 GW-013926-102017-DJB-112 10/20/2017 Duplicate
Metals								
Arsenic	mg/L	-	0.0500 U	0.00235 J	0.00192 J	0.00131 J	0.00228 J	0.00234 J
Arsenic (dissolved)	mg/L	-	-	-	-	-	--	--
Barium	mg/L	-	0.242	0.278	0.382	0.268	0.3	0.289
Barium (dissolved)	mg/L	-	-	-	-	-	--	--
Cadmium	mg/L	-	0.0050 U	0.000496 J	0.00057 J	0.000246 J	0.000295 J	0.000244 J
Cadmium (dissolved)	mg/L	-	-	-	-	-	--	--
Chromium	mg/L	-	0.0011 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	-	-	--	--
Copper	mg/L	-	0.0100 U	0.00236	0.000906 J	0.000256 J	0.002 UJ	0.0583 J
Copper (dissolved)	mg/L	-	-	-	-		--	--
Iron	mg/L	17.3	12.9	6.69	4.79	-	5	5.3
Iron (dissolved)	mg/L	12.9	-	-	-	6	--	--
Lead	mg/L	-	0.0100 U	0.00102	0.001 U	0.001 U	0.00191 J	0.000524 J
Lead (dissolved)	mg/L	-	-	-	-	-	--	--
Manganese	mg/L	10.9 J	9.35	-	13.8	-	9.93	9.58
Manganese (dissolved)	mg/L	10.0 J	-	-	-	10.8	--	--
Selenium	mg/L	-	0.0083 J	0.000572 J	0.005 U	0.000285 J	0.005 U	0.005 U
Selenium (dissolved)	mg/L	-	-		-	-		
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9.0 U	8.7 J	4.3 J	3.6 J	4.1 J
Ethene	ug/L	7 U	7 U	7.0 U	7.2	3.6 J	7.0 U	7.0 U
Methane	ug/L	1400	99	4.0 U	580	210	170	200
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	42.9	27.8	22.0	37.0	30.0	28.0	29.0
Ammonia	mg/L	-	0.188 J	0.020 U	0.071	0.065	0.058	0.057
Chloride	mg/L	58	44	18	47	34	41	41
Ferrous iron	mg/L	12.6	-	-	-		--	--
Nitrate (as N)	mg/L	0.25 U	2.5 U	6.1	0.33	0.25 U	0.25 U	0.25 U
Orthophosphate	mg/L	-	0.0100 U	0.00986 J	0.00804 J	0.0100 U	0.0449 J	0.0232 J
Sulfate	mg/L	18	9.6 J	7.7	8.3	15	22	21
Total organic carbon (TOC)	mg/L	4.12 U	4.83	4.72	7.80	10.1	8.44	8.53
Field Parameters								
pH	S.U	5.32	5.69	5.39	5.53	5.61	9.75	9.75
DO	mg/L	0.52	0.68	2.92	0.0	0.0	0.00	0.00
ORP	mv	117	90	275	109	145	-10	-10

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample ID:		GW-020911-DJB-208	GW-101211-DJB-107	GW-013926-041416-SAG-110	GW-013926-101916-SAG-012	GW-013926-042017-DJB-110	GW-013926-101917-DJB-108
Sample Date:		2/9/2011	10/12/2011	4/14/2016	10/19/2016	4/20/2017	10/19/2017
Parameters	Units						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	3.5	3.8 J	1.1	4.9
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	4.9 J	4.0 J	9.6	15	4.3	13
1,1-Dichloroethene	ug/L	3.1 J	3.0 J	5.2	8.5	2.9	5.2
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	0.88 J
1,4-Dioxane	ug/L	-	-	150 U	140	29	68
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	0.41 J	2.9	4.1	1.0 U	3.3
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.8	1.9	1.0 U	1.0
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	33	30	79	130	34	110
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	11	7.5	23	36	11	29
Toluene	ug/L	5.0 U	31	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	22	19	72	120	25	85
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	2.1 J	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	0.96 J	2.1	1.5	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Sample Location: / Sample ID: / Sample Date: / Units	MW-4 GW-020911-DJB-208 2/9/2011	MW-4 GW-101211-DJB-107 10/12/2011	MW-4 GW-013926-041416-SAG-110 4/14/2016	MW-4 GW-013926-101916-SAG-012 10/19/2016	MW-4 GW-013926-042017-DJB-110 4/20/2017	MW-4 GW-013926-101917-DJB-108 10/19/2017
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.000468 J	0.000187 J	0.000199 J	0.00884 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	--
Barium	mg/L	0.171	0.179	0.171	0.196	0.138	0.189
Barium (dissolved)	mg/L	0.148	-	-	-	-	--
Cadmium	mg/L	0.0050 U	0.0050 U	0.0007 U	0.000389 J	0.0007 U	0.000189 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	--
Chromium	mg/L	0.0100 U	0.0100 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Copper	mg/L	0.0100 U	0.0100 U	0.002 U	0.00103 J	0.00028 J	0.002 U
Copper (dissolved)	mg/L	0.0100 U	-	-	-		--
Iron	mg/L	0.157	0.100 U	0.1 U	0.226	-	0.1 U
Iron (dissolved)	mg/L	0.100 U	-	-	-	0.00987 J	--
Lead	mg/L	0.0100 U	0.0100 U	0.000144 J	0.001 U	0.001 U	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Manganese	mg/L	2.51	2.81	-	0.292	-	3.56
Manganese (dissolved)	mg/L	2.26	-	-	-	2.12	--
Selenium	mg/L	0.0200 U	0.0200 U	0.000875 J	0.005 U	0.005 U	0.00118 J
Selenium (dissolved)	mg/L	0.0200 U	-		-	-	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	21	160	23	6.7	28
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	37.9	34.1	36.0	43.0	34.0	44.0
Ammonia	mg/L	-	0.056 J	0.020 U	0.088	0.020	0.062
Chloride	mg/L	8.5	8.7	12	21	6.0	15
Ferrous iron	mg/L	0.100 UJ	-	-	-		--
Nitrate (as N)	mg/L	6.8	9.4	4.0	1.1	3.8	3.4
Orthophosphate	mg/L	-	0.0389	0.0240	0.0354	0.0261	0.0365
Sulfate	mg/L	11	15	13	8.2	11	13
Total organic carbon (TOC)	mg/L	5.00 U	2.89	2.32	1.00 U	2.53	1.00 U
Field Parameters							
pH	S.U	4.96	5.63	5.36	5.53	5.51	9.63
DO	mg/L	2.5	0.36	4.10	0.0	0.0	0.00
ORP	mv	330	101	293	235	359	111

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-11 GW-021011-DJB-210 2/10/2011	MW-11 GW-101211-SAG-006 10/12/2011	MW-11 GW-013926-041316-MRB-006 4/13/2016	MW-11 GW-013926-101916-SAG-010 10/19/2016	MW-11 GW-013926-041917-SAG-007 4/19/2017	MW-11 GW-013926-102017-SDL-007 10/20/2017
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	4.4 J	3.4 J	3.0	1.0 U	2.1	5.7
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	2.1	4.2	5.8
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	14	9.6	8.2	1.0 U	6.8	22
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	16	7.2	11	9.4	7.7	19
Toluene	ug/L	41	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	34	19	28	5.4	19	42
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-11 GW-021011-DJB-210 2/10/2011	MW-11 GW-101211-SAG-006 10/12/2011	MW-11 GW-013926-041316-MRB-006 4/13/2016	MW-11 GW-013926-101916-SAG-010 10/19/2016	MW-11 GW-013926-041917-SAG-007 4/19/2017	MW-11 GW-013926-102017-SDL-007 10/20/2017
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.005 U	0.005 U	0.000287 J	0.000318 J
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	--
Barium	mg/L	0.119	0.110	0.0655	0.0593	0.0596	0.0705
Barium (dissolved)	mg/L	0.112	-	-	-	-	--
Cadmium	mg/L	0.0005 J	0.0002 J	0.000286 J	0.00048 J	0.000372 J	0.000267 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	--
Chromium	mg/L	0.0100 U	0.0100 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Copper	mg/L	0.0100 U	0.0100 U	0.00283	0.00115 J	0.000465 J	0.002 U
Copper (dissolved)	mg/L	0.0100 U	-	-	-		--
Iron	mg/L	0.117	0.100 U	0.308	0.0686 J	-	0.028 J
Iron (dissolved)	mg/L	0.100 U	-	-	-	0.067 J	--
Lead	mg/L	0.0100 U	0.0014 J	0.000907 J	0.001 U	0.001 U	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Manganese	mg/L	1.03	0.867	-	0.398	-	0.509
Manganese (dissolved)	mg/L	1.02	-	-	-	0.471	--
Selenium	mg/L	0.0200 U	0.0200 U	0.000368 J	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-	-	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	4 U	31	1.9 J	14	26
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	8.7 J	8.9 J	5.00	11.0	12.0	8.00
Ammonia	mg/L	0.200 U	0.030 J	0.211	0.020 U	0.020 U	0.020 U
Chloride	mg/L	16	12	7.1	5.8	6.7	6.6
Ferrous iron	mg/L	0.100 UJ	-	-	-		--
Nitrate (as N)	mg/L	0.65	0.47	0.26	0.26	0.33	0.31
Orthophosphate	mg/L	0.00584 J	0.0100 U	0.00856 J	0.0100 U	0.00637 J	0.0100 U
Sulfate	mg/L	1.0 U	1.0 U	0.39 J	0.99 J	0.62 J	0.52 J
Total organic carbon (TOC)	mg/L	3.36	3.43	7.48	2.09	1.89	0.738 J
Field Parameters							
pH	S.U	5.21	5.29	4.57	5.49	5.37	4.00
DO	mg/L	9.02	4.77	7.0	2.16	1.31	4.55
ORP	mv	325	305	261	332	225	500

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-12 GW-021511-DJB-214 2/15/2011	MW-12 GW-021511-DJB-215 2/15/2011	MW-12 GW-101211-SAG-010 10/12/2011	MW-12 GW-013926-041316-SAG-107 4/13/2016	MW-12 GW-013926-101816-SAG-007 10/18/2016	MW-12 GW-013926-101816-SAG-008 10/18/2016 Duplicate	MW-12 GW-013926-041817-DJB-105 4/18/2017	MW-12 GW-013926-102017-DJB-110 10/20/2017
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.5 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	3.2 J	3.3 J	3.0 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	1.7 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	150 U	13	13	12	9.5
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	16 J	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.7 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	180	190	170	9.4	15	15	14	18
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	62	59	50	47	62	55	28	38
Toluene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	390	390	400	40	61	58	49	67
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.1	2.1	1.6 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Sample Location: / Sample ID: / Sample Date: / Units	MW-12 GW-021511-DJB-214 2/15/2011	MW-12 GW-021511-DJB-215 2/15/2011	MW-12 GW-101211-SAG-010 10/12/2011	MW-12 GW-013926-041316-SAG-107 4/13/2016	MW-12 GW-013926-101816-SAG-007 10/18/2016	MW-12 GW-013926-101816-SAG-008 10/18/2016 Duplicate	MW-12 GW-013926-041817-DJB-105 4/18/2017	MW-12 GW-013926-102017-DJB-110 10/20/2017
Metals									
Arsenic	mg/L	-	-	0.0500 U	0.000638 J	0.005 U	0.005 U	0.005 U	0.000424 J
Arsenic (dissolved)	mg/L	-	-	-	-	-	-	-	--
Barium	mg/L	-	-	0.108	0.171	0.143	0.141	0.109	0.111
Barium (dissolved)	mg/L	-	-	-	-	-	-	-	--
Cadmium	mg/L	-	-	0.0050 U	0.000254 J	0.000203 J	0.000201 J	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	-	--
Chromium	mg/L	-	-	0.0026 J	0.00529	0.005 U	0.005 U	0.00464 J	0.004 J
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-	-	--
Copper	mg/L	-	-	0.0011 J	0.002 U	0.00131 J	0.00108 J	0.002 U	0.002 U
Copper (dissolved)	mg/L	-	-	-	-	-	-		--
Iron	mg/L	0.156	0.100 U	0.276 U	0.0518 J	0.118	0.12	-	0.124
Iron (dissolved)	mg/L	0.100 U	0.100 U	-	-	-	-	0.0638 J	--
Lead	mg/L	-	-	0.0100 U	0.000278 J	0.001 U	0.001 U	0.001 U	0.000455 J
Lead (dissolved)	mg/L	-	-	-	-	-	-	-	--
Manganese	mg/L	0.184	0.186	0.134	-	0.176	0.176	-	0.078
Manganese (dissolved)	mg/L	0.178	0.180	-	-	-	-	0.0766	--
Selenium	mg/L	-	-	0.0200 U	0.00122 J	0.005 U	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	-	-	-		-	-	-	
Dissolved Gas									
Ethane	ug/L	9 U	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	4 U	4 U	1.8 J	4.0 U	1.2 J	4.0 U	16
Wet Chemistry									
Alkalinity, total (as CaCO3)	mg/L	15.5	14.5	11.6	7.00	6.00	8.00	9.00	8.00
Ammonia	mg/L	-	-	0.049 J	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	10	10	8.7	14	11	12	9.2	9.1
Ferrous iron	mg/L	0.100 U	0.100 U	-	-	-	-		--
Nitrate (as N)	mg/L	0.75	0.76	0.74	3.2	1.9	1.9	1.5	1.5
Orthophosphate	mg/L	-	-	0.0219	0.0208	0.0289	0.0292	0.0384	0.0224
Sulfate	mg/L	2.3	3.8	2.1	2.0	2.2	2.2	2.6	2.5
Total organic carbon (TOC)	mg/L	5.00 U	1.00 U	2.87	1.46	1.00 U	0.532 J	1.15	1.00 U
Field Parameters									
pH	S.U	4.67	4.67	5.42	4.64	5.24	-	5.66	--
DO	mg/L	3.23	3.23	3.95	0.0	0.0	-	0.0	1.03
ORP	mv	356	356	206	375	329	-	384	65

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
Sample ID:		GW-020911-SAG-119	GW-101311-SAG-012	GW-013926-041316-SAG-106	GW-013926-101816-DJB-102	GW-013926-041817-DJB-101	GW-013926-101917-DJB-104
Sample Date:		2/9/2011	10/13/2011	4/13/2016	10/18/2016	4/18/2017	10/19/2017
Parameters	Units						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	2.0 U	1.6 J	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-14 GW-020911-SAG-119 2/9/2011	MW-14 GW-101311-SAG-012 10/13/2011	MW-14 GW-013926-041316-SAG-106 4/13/2016	MW-14 GW-013926-101816-DJB-102 10/18/2016	MW-14 GW-013926-041817-DJB-101 4/18/2017	MW-14 GW-013926-101917-DJB-104 10/19/2017
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.000421 J	0.005 U	0.005 U	0.00656 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	--
Barium	mg/L	0.0443	0.0487	0.0488	0.0424	0.0464	0.0445
Barium (dissolved)	mg/L	0.0383	-	-	-	-	--
Cadmium	mg/L	0.0050 U	0.0050 U	0.000188 J	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	--
Chromium	mg/L	0.0100 U	0.0015 J	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Copper	mg/L	0.0009 J	0.0100 U	0.002 U	0.000953 J	0.002 U	0.002 U
Copper (dissolved)	mg/L	0.0100 U	-	-	-		--
Iron	mg/L	0.332	1.21	0.465	0.489	-	0.231
Iron (dissolved)	mg/L	0.100 U	-	-	-	0.386	--
Lead	mg/L	0.0100 U	0.0008 J	0.000514 J	0.001 U	0.000336 J	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Manganese	mg/L	0.0039 J	0.0090 J	-	0.00502	-	0.00359 J
Manganese (dissolved)	mg/L	0.0063 J	-	-	-	0.00533	--
Selenium	mg/L	0.0200 U	0.0200 U	0.00153 J	0.005 U	0.000531 J	0.00104 J
Selenium (dissolved)	mg/L	0.0200 U	-		-	-	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	7	4 U	4.0 U	1.6 J	4.0 U	4.0 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	11.9	10.0 U	21.0	19.0	18.0	18.0
Ammonia	mg/L	-	0.020 J	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	5.8	2.3	2.5	2.1	1.9	2.1
Ferrous iron	mg/L	0.100 UJ	-	-	-		--
Nitrate (as N)	mg/L	1.3	1.4	1.7	1.4	1.6	1.7
Orthophosphate	mg/L	-	0.0171	0.0103	0.0123	0.0146	0.0133
Sulfate	mg/L	14	16	15	13	14	15
Total organic carbon (TOC)	mg/L	1.00 U	0.565 J	0.961 J	1.00 U	0.579 J	1.00 U
Field Parameters							
pH	S.U	4.94	5.45	5.1	5.68	5.85	7.90
DO	mg/L	6.5	5.14	1.27	4.92	2.46	7.62
ORP	mv	455	290	309	255	370	216

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Sample Location:		MW-35	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35	MW-35
Sample ID:		GW-021011-EAH-018	GW-101211-SAG-008	GW-013926-041316-MRB-007	GW-013926-041316-MRB-008	GW-013926-101916-SAG-011	GW-013926-042017-SAG-008	GW-013926-042017-SAG-009	GW-013926-102017-SDL-008
Sample Date:		2/10/2011	10/12/2011	4/13/2016	4/13/2016	10/19/2016	4/20/2017	4/20/2017	10/20/2017
Parameters	Units				Duplicate			Duplicate	
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5.0 U	1.1 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	18	33	14	13	4.4	7.8	7.5	8.6
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	9.2	11	1.7	1.7	1.0 U	1.0	0.95 J	1.0 U
1,1-Dichloroethene	ug/L	3.2 J	3.4 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	0.94 J	1.8 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.6 J	2.1 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	3.3 J	4.9 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	150 U	16	12	16	11
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	6.2	11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.2 J	1.6 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	4.3 J	5.5 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	2.2 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	72	78	39	38	23	27	27	29
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	16	18	14	14	10	8.6	8.8	17
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	170	210	140	140	81	79	80	96
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	7.6	9.7	1.4	1.3	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Sample Location: / Sample ID: / Sample Date: / Units	MW-35 GW-021011-EAH-018 2/10/2011	MW-35 GW-101211-SAG-008 10/12/2011	MW-35 GW-013926-041316-MRB-007 4/13/2016	MW-35 GW-013926-041316-MRB-008 4/13/2016 Duplicate	MW-35 GW-013926-101916-SAG-011 10/19/2016	MW-35 GW-013926-042017-SAG-008 4/20/2017	MW-35 GW-013926-042017-SAG-009 4/20/2017 Duplicate	MW-35 GW-013926-102017-SDL-008 10/20/2017
Metals									
Arsenic	mg/L	0.0500 U	0.0500 U	0.000504 J	0.00048 J	0.000360 J	0.005 U	0.000169 J	0.000397 J
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	-	-	--
Barium	mg/L	0.523	0.411	0.211	0.207	0.18	0.196	0.208	0.186
Barium (dissolved)	mg/L	0.453	-	-	-	-	-	-	--
Cadmium	mg/L	0.0004 J	0.0003 J	0.000211 J	0.00021 J	0.000188 J	0.000586 J	0.000674 J	0.0007 U
Cadmium (dissolved)	mg/L	0.0001 J	-	-	-	-	-	-	--
Chromium	mg/L	0.0100 U	0.0100 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	-	-	--
Copper	mg/L	0.0019 J	0.0020 J	0.00408	0.00411	0.000587 J	0.00379	0.00508	0.002 U
Copper (dissolved)	mg/L	0.0100 U	-	-	-	-			--
Iron	mg/L	0.395	0.123 U	0.304	0.307	0.100 U	-	-	0.1 U
Iron (dissolved)	mg/L	0.0397 J	-	-	-	-	0.0921 J	0.211 J	--
Lead	mg/L	0.0100 U	0.0007 J	0.000614 J	0.000657 J	0.00100 U	0.000373 J	0.000415 J	[illegible]
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	-	-	--
Manganese	mg/L	0.684	0.507	-	-	3.96	-	-	0.242
Manganese (dissolved)	mg/L	0.610	-	-	-	-	0.288	0.286	--
Selenium	mg/L	0.0200 U	0.0200 U	0.00139 J	0.00158 J	0.00500 U	0.000367 J	0.000306 J	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-				-	-	
Dissolved Gas									
Ethane	ug/L	-	9 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	-	7 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	-	1300	9.4	9.4	8.5	20 J	39 J	3.8 J
Wet Chemistry									
Alkalinity, total (as CaCO3)	mg/L	-	6.3 J	5.00	3.00 U	5.00	6.00	6.00	4.00
Ammonia	mg/L	0.046 J	0.068 J	0.141 J	0.052 J	0.015 J	0.020 U	0.012 J	0.020 U
Chloride	mg/L	-	53	29	30	28	29	28	29
Ferrous iron	mg/L	0.100 U	-	-	-	-			--
Nitrate (as N)	mg/L	0.31	0.34	0.38	0.38	0.38	0.27	0.27	0.29
Orthophosphate	mg/L	0.00747 J	0.0127	0.00703 J	0.00857 J	0.00514 J	0.00524 J	0.00411 J	0.00873 J
Sulfate	mg/L	1.7	1.4	2.7 J	9.9 J	0.87 J	0.55 J	0.90 J	2.6
Total organic carbon (TOC)	mg/L	-	6.98	5.49	5.67	1.21	2.76	2.68	1.56
Field Parameters									
pH	S.U	4.38	4.88	4.78	-	4.96	5.05	-	4.06
DO	mg/L	0	0.91	7.16	-	0.0	0.36	-	3.88
ORP	mv	352	268	262	-	271	204	-	517

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Units	MW-42 GW-020911-EAH-017 2/9/2011	MW-42 GW-101211-SAG-011 10/12/2011	MW-42 GW-013926-041216-SAG-102 4/12/2016	MW-42 GW-013926-101916-DJB-106 10/19/2016	MW-42 GW-013926-041917-DJB-106 4/19/2017	MW-42 GW-013926-101817-DJB-102 10/18/2017
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	16	11	2.6	2.1	2.1	0.93 J
1,1,2,2-Tetrachloroethane	ug/L	57	37	16	8.5	14	13
1,1,2-Trichloroethane	ug/L	3.4 J	3.3 J	1.0 U	1.0 U	1.4	1.5
1,1-Dichloroethane	ug/L	110	94	22	23	24	24
1,1-Dichloroethene	ug/L	140	110	25	31	35	24
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	7.1	5.9	2.4	2.2	2.0	2.5
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	0.93 J	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	550 J	330	330
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	34	21	0.60 J	0.86 J	0.64 J	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 J	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	57	39	15	14	15	15
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1000	750	190	230	210	330
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	0.97 J	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	3.6 J	3.2 J	5.0 U	5.0 U	1.8 J	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	180	130	49	110	80	63
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	4.3 J	5.0 U	2.0 U	2.0 U	2.0 U	0.68 J
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	820	700	230	320	270	320
Trichlorofluoromethane (CFC-11)	ug/L	6.8	8.6	4.0	2.6	4.6	1.1
Trifluorotrichloroethane (Freon 113)	ug/L	47	37	6.7	5.0 U	13	5.0 U
Vinyl chloride	ug/L	31	24	1.6	1.9	2.1	1.2
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Sample Location: / Sample ID: / Sample Date: / Units	MW-42 GW-020911-EAH-017 2/9/2011	MW-42 GW-101211-SAG-011 10/12/2011	MW-42 GW-013926-041216-SAG-102 4/12/2016	MW-42 GW-013926-101916-DJB-106 10/19/2016	MW-42 GW-013926-041917-DJB-106 4/19/2017	MW-42 GW-013926-101817-DJB-102 10/18/2017
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.000432 J	0.000237 J	0.00035 J	0.005 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	--
Barium	mg/L	0.488	0.351	0.184	0.234	0.268	0.413
Barium (dissolved)	mg/L	0.125	-	-	-	-	--
Cadmium	mg/L	0.0050 U	0.0050 U	0.000359 J	0.0007 U	0.0007 U	0.000241 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	--
Chromium	mg/L	0.0214	0.0130	0.00132 J	0.005 U	0.005 U	0.0062
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Copper	mg/L	0.0028 J	0.0014 J	0.000378 J	0.000645 J	0.000728 J	0.00125 J
Copper (dissolved)	mg/L	0.0100 U	-	-	-		--
Iron	mg/L	11.1	7.27	0.679	0.906	-	4.16
Iron (dissolved)	mg/L	0.0316 J	-	-	-	1.42	--
Lead	mg/L	0.0100 U	0.0024 J	0.000261 J	0.001 U	0.000467 J	0.00228
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	
Manganese	mg/L	0.218	0.176	-	0.0322	-	0.291
Manganese (dissolved)	mg/L	0.0501	-	-	-	0.0532	--
Selenium	mg/L	0.0200 U	0.0200 U	0.000989 J	0.005 U	0.000282 J	0.000401 J
Selenium (dissolved)	mg/L	0.0200 U	-		-	-	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U	3.7 J
Methane	ug/L	95	110	12	8.5	6.7	74
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	59.7	53.0	26.0	40.0	44.0	41.0
Ammonia	mg/L	-	0.060 J	0.020 U	0.034	0.020 U	0.020 U
Chloride	mg/L	2.2	2.0	14 J	13	13	12
Ferrous iron	mg/L	1.51 J	-	-	-		--
Nitrate (as N)	mg/L	0.42	0.38	1.6	1.2	1.1	1.0
Orthophosphate	mg/L	-	0.123	0.147	0.151	0.0457	0.154
Sulfate	mg/L	1.5	0.56 J	0.46 J	0.49 J	0.43 J	0.50 J
Total organic carbon (TOC)	mg/L	0.730 J	3.25	9.42	0.650 J	1.86	1.00 U
Field Parameters							
pH	S.U	5.94	5.88	5.32	5.97	6.07	--
DO	mg/L	1.4	0.6	0.0	0.0	0.0	0.00
ORP	mv	147	153	299	107	161	131

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Units	TW-2 GW-020911-EAH-016 2/9/2011	TW-2 GW-101311-SAG-013 10/13/2011	TW-2 GW-013926-041316-SAG-105 4/13/2016	TW-2 GW-013926-101816-DJB-103 10/18/2016	TW-2 GW-013926-041817-DJB-102 4/18/2017	TW-2 GW-013926-101917-DJB-105 10/19/2017
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	2.0 U	2.0 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
[illegible]	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4A

Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburgh County, South Carolina

Parameters	Units	TW-2 GW-020911-EAH-016 2/9/2011	TW-2 GW-101311-SAG-013 10/13/2011	TW-2 GW-013926-041316-SAG-105 4/13/2016	TW-2 GW-013926-101816-DJB-103 10/18/2016	TW-2 GW-013926-041817-DJB-102 4/18/2017	TW-2 GW-013926-101917-DJB-105 10/19/2017
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.000366 J	0.005 U	0.000157 J	0.00739 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	--
Barium	mg/L	0.389	0.208	0.0174	0.0358	0.0282	0.0234
Barium (dissolved)	mg/L	0.0227	-	-	-	-	--
Cadmium	mg/L	0.0050 U	0.0050 U	0.000186 J	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	--
Chromium	mg/L	0.0416	0.0184	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Copper	mg/L	0.0721	0.0187	0.002 U	0.00254	0.0023	0.002 U
Copper (dissolved)	mg/L	0.0011 J	-	-	-		--
Iron	mg/L	19.9	10.1	0.0379 J	0.89	-	0.248
Iron (dissolved)	mg/L	0.0864 J	-	-	-	0.819	--
Lead	mg/L	0.0174	0.0056 J	0.000523 J	0.001 U	0.000287 J	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Manganese	mg/L	1.99	1.49	-	0.195	-	0.0895
Manganese (dissolved)	mg/L	0.638	-	-	-	0.275	--
Selenium	mg/L	0.0200 U	0.0200 U	0.00109 J	0.005 U	0.005 U	0.000387 J
Selenium (dissolved)	mg/L	0.0200 U	-		-	-	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	890	16	4.0 U	73	25	44
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	42.6	35.2	25.0	29.0	27.0	27.0
Ammonia	mg/L	-	0.012 J	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	1.9	2.2	2.3	1.8	1.9	1.9
Ferrous iron	mg/L	0.200 UJ	-	-	-		--
Nitrate (as N)	mg/L	0.62	0.72	1.0	0.92	1.2	1.2
Orthophosphate	mg/L	-	0.0908	0.0868	0.0848	0.0853	0.0820
Sulfate	mg/L	2.8	2.3	3.5	2.3	2.1	2.1
Total organic carbon (TOC)	mg/L	1.00 U	0.733 J	1.44	1.00 U	0.596 J	2.15
Field Parameters							
pH	S.U	6.65	6.72	6.22	6.56	5.22	9.56
DO	mg/L	1.99	0.84	0.0	1	0.0	9.59
ORP	mv	210	224	177	170	309	34

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
Sample Location:		MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A
Sample ID:		GW-020211-EAH-001	GW-101111-SAG-005	GW-013926-041316-SAG-108	GW-013926-101916-DJB-105	GW-013926-041917-DJB-107	GW-013926-102017-DJB-109
Sample Date:		2/2/2011	10/11/2011	4/13/2016	10/19/2016	4/19/2017	10/20/2017
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.0	1.9	1.2	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	--
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	58	43	26
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	17 J	11 J	24	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	16	15	6.2	17	1.4	2.7
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	14	1.8 J	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	3.5 J	3.6 J	1.7	1.0 U	1.4	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	1.3	4.3	1.5	1.6
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
Sample Location:		MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A
Sample ID:		GW-020211-EAH-001	GW-101111-SAG-005	GW-013926-041316-SAG-108	GW-013926-101916-DJB-105	GW-013926-041917-DJB-107	GW-013926-102017-DJB-109
Sample Date:		2/2/2011	10/11/2011	4/13/2016	10/19/2016	4/19/2017	10/20/2017
Parameters	***Units***						
Metals							
Arsenic	mg/L	-	0.0500 U	0.000882 J	0.000689 J	0.000802 J	0.000866 J
Arsenic (dissolved)	mg/L	-	-	-	-	-	--
Barium	mg/L	-	0.0154 J	0.0664	0.0768	0.0811	0.092
Barium (dissolved)	mg/L	-	-	-	-	-	--
Cadmium	mg/L	-	0.0050 U	0.000474 J	0.000195 J	0.000213 J	0.0007 U
Cadmium (dissolved)	mg/L	-	-	-	-	-	--
Chromium	mg/L	-	0.0011 J	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	-	-	--
Copper	mg/L	-	0.0045 J	0.000683 J	0.00138 J	0.00093 J	0.002 U
Copper (dissolved)	mg/L	-	-	-	-		--
Iron	mg/L	-	0.100 U	0.231	0.174	-	0.189
Iron (dissolved)	mg/L	-	-	-	-	0.305	--
Lead	mg/L	-	0.0100 U	0.000423 J	0.001 U	0.000317 J	0.000417 J
Lead (dissolved)	mg/L	-	-	-	-	-	--
Manganese	mg/L	-	0.0455	-	0.14	-	0.147
Manganese (dissolved)	mg/L	-	-	-	-	0.186	--
Selenium	mg/L	-	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	-	-		-	-	
Dissolved Gas							
Ethane	ug/L	-	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	-	7 U	5.4 J	7.0 U	5.6 J	4.7 J
Methane	ug/L	-	33	1800	330	2600	3600
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	-	365	138	150	188	145
Ammonia	mg/L	-	0.067 J	1.57	1.59	3.79	2.25
Chloride	mg/L	-	15	7.7	9.1	5.0	7.4
Ferrous iron	mg/L	-	-	-	-		--
Nitrate (as N)	mg/L	-	2.5 U	0.031 J	0.033 J	0.25 U	0.25 U
Orthophosphate	mg/L	-	0.0151 U	0.159	0.234	0.187	0.341
Sulfate	mg/L	-	22	5.9	7.2	5.8	4.6
Total organic carbon (TOC)	mg/L	-	25.6	4.77	4.99	3.84	9.40
Field Parameters							
pH	S.U	11.69	11.6	7.10	6.72	7.44	10.39
DO	mg/L	2.73	3.26	0.0	0.58	0.76	0.00
ORP	mv	17	-5	-80	-144	-121	-185

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts
[1] Monitoring well MW-10A was not accessible for sampling during this event

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit				
Sample Location:		MW-10A	MW-10A	MW-10A	MW-10A	MW-10A
Sample ID:		GW-020911-DJB-209	GW-013926-041416-SAG-111	GW-013926-101916-DJB-109	GW-013926-042017-DJB-111	GW-013926-101917-DJB-106
Sample Date:		2/9/2011	4/14/2016	10/19/2016	4/20/2017	10/19/2017
Parameters	***Units***					
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	150 U	2.0 J	1.4 J	1.7 J
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	3.5 J	2.6	5.1	1.2	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	5.4	1.0 U	1.0 U	0.55 J	0.73 J
trans-1,2-Dichloroethene	ug/L	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	1.0 U	1.0 U	1.5	3.8
Xylenes (total)	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit				
	Sample Location:	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A
	Sample ID:	GW-020911-DJB-209	GW-013926-041416-SAG-111	GW-013926-101916-DJB-109	GW-013926-042017-DJB-111	GW-013926-101917-DJB-106
	Sample Date:	2/9/2011	4/14/2016	10/19/2016	4/20/2017	10/19/2017
Parameters	***Units***					
Metals						
Arsenic	mg/L	50 U	0.000895 J	0.0017 J	0.00238 J	0.0109 U
Arsenic (dissolved)	mg/L	50 U	-	-	-	--
Barium	mg/L	17.1 J	0.0221	0.0292	0.0401	0.0403
Barium (dissolved)	mg/L	11.6 J	-	-	-	--
Cadmium	mg/L	5 U	0.0007 U	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	5 U	-	-	-	--
Chromium	mg/L	10 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	10 U	-	-	-	--
Copper	mg/L	10 U	0.000906 J	0.000669 J	0.000314 J	0.002 U
Copper (dissolved)	mg/L	10 U	-	-		--
Iron	mg/L	103	0.0798 J	0.21	-	0.406
Iron (dissolved)	mg/L	100 U	-	-	0.782	--
Lead	mg/L	9.6 J	0.00568	0.00156	0.0009 J	0.00462
Lead (dissolved)	mg/L	10 U	-	-	-	--
Manganese	mg/L	118	-	0.778	-	1.44
Manganese (dissolved)	mg/L	2.6 J	-	-	1.3	--
Selenium	mg/L	20 U	0.005 U	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	20 U		-	-	
Dissolved Gas						
Ethane	ug/L	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	43	750	150	1500
Wet Chemistry						
Alkalinity, total (as CaCO3)	mg/L	73700	74.0	75.0	78.0	82.0
Ammonia	mg/L	-	0.083	2.44	1.12	1.03
Chloride	mg/L	1400	4.4	1.4	1.0	1.4
Ferrous iron	mg/L	100 UJ	-	-		--
Nitrate (as N)	mg/L	99 J	0.058 J	0.25 U	0.056 J	0.15 J
Orthophosphate	mg/L	-	0.0501	0.254	0.0602	0.115
Sulfate	mg/L	10000	9.1	4.0	7.5	6.7
Total organic carbon (TOC)	mg/L	577 J	1.72	1.62	1.10	1.00 U
Field Parameters						
pH	S.U	7.25	7.22	7.01	-	9.71
DO	mg/L	5.36	2.99	0.0	-	0.00
ORP	mv	215	164	-230	-	-192

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts
[1] Monitoring well MW-10A was not accessible for sampling during this event

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit						
Sample Location:		MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13
Sample ID:		GW-020911-SAG-120	GW-101211-DJB-105	GW-101211-DJB-104	GW-013926-041216-SAG-103	GW-013926-101816-DJB-104	GW-013926-041817-DJB-103	GW-013926-101817-DJB-103
Sample Date:		2/9/2011	10/12/2011	10/12/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
			Duplicate					
Parameters	***Units***							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	1.4 J	1.7 J	1.6 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	12	10	11	4.2	2.9	5.6	6.2
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	15	30	30	2.3	4.9	7.3	7.7
1,1-Dichloroethene	ug/L	13	29	28	1.8 J	4.3	6.8	7.7
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	0.88 J	1.9 J	1.9 J	1.0 U	1.0 U	1.0 U	0.56 J
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	1.0 J	0.99 J	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	150 U	42	56	66
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	1.6 J	6.8	7.0	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	0.55 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.4	8.1	7.9	1.4	1.6	2.3	2.2
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	270	320	350	69	93	130	130
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	2.2 J	2.2 J	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	61	76	75	27	46	35	46
Toluene	ug/L	5.0 U	13	14	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	0.51 J
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	330	400	430	140	180	190	200
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	7.6 J	15	15	5.0 U	5.0 U	4.0 J	3.2 J
Vinyl chloride	ug/L	4.2	12	12	1.0 U	1.0 U	1.1	0.80 J
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit						
	Sample Location:	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13
	Sample ID:	GW-020911-SAG-120	GW-101211-DJB-105	GW-101211-DJB-104	GW-013926-041216-SAG-103	GW-013926-101816-DJB-104	GW-013926-041817-DJB-103	GW-013926-101817-DJB-103
	Sample Date:	2/9/2011	10/12/2011	10/12/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
			Duplicate					
Parameters	***Units***							
Metals								
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.000371 J	0.005 U	0.000439 J	0.005 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	-	--
Barium	mg/L	0.102	0.0979	0.104	0.0615	0.0735	0.0806	0.0819
Barium (dissolved)	mg/L	0.0903	-	-	-	-	-	--
Cadmium	mg/L	0.0050 U	0.0004 J	0.0050 U	0.0007 U	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	-	--
Chromium	mg/L	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	-	--
Copper	mg/L	0.0100 U	0.0100 U	0.0100 U	0.002 U	0.000768 J	0.002 U	0.002 U
Copper (dissolved)	mg/L	0.0100 U	-	-	-	-		--
Iron	mg/L	0.0272 J	0.100 U	0.174 U	0.1 U	0.1 U	-	0.0121 J
Iron (dissolved)	mg/L	0.100 U	-	-	-	-	0.1 U	--
Lead	mg/L	0.0100 U	0.0026 J	0.0074 J	0.000207 J	0.001 U	0.001 U	0.00111
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	-	--
Manganese	mg/L	0.0798	0.0601	0.0679	-	0.0329	-	0.0113
Manganese (dissolved)	mg/L	0.0635	-	-	-	-	0.0201	--
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.000981 J	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-	-		-	-	
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	39	200	210	1.3 J	4.0 U	2.4 J	4.0 U
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	30.8	43.3	45.1	25.0	23.0	31.0	31.0
Ammonia	mg/L	-	0.029 J	0.036 J	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	21	18	18	9.6 J	11	13	14
Ferrous iron	mg/L	0.100 UJ	-	-	-	-		--
Nitrate (as N)	mg/L	0.86	0.42	0.41	0.89	0.67	0.74	0.69
Orthophosphate	mg/L	-	0.212	0.214	0.0815	0.138	0.169	0.188
Sulfate	mg/L	1.1	1.0	2.3	0.81 J	0.57 J	1.0	0.89 J
Total organic carbon (TOC)	mg/L	0.205 J	3.15	2.62	11.2	1.00 U	1.36	0.391 J
Field Parameters								
pH	S.U	5.32	6.3	6.3	4.97	5.83	4.42	10.91
DO	mg/L	0.39	0.6	0.6	0.24	0.88	0.0	0.00
ORP	mv	452	142	142	350	291	321	82

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporting limts
[1] Monitoring well MW-10A was not accessible for sampling during this event

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

Sample Location:		MW-41	MW-41	MW-41	MW-41	MW-41	MW-41
Sample ID:		GW-021111-DJB-212	GW-101211-DJB-103	GW-013926-041216-SAG-104	GW-013926-101816-DJB-101	GW-013926-041817-DJB-104	GW-013926-101817-DJB-101
Sample Date:		2/11/2011	10/12/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	3.5 J	5.0 U	1.0 U	1.0 U	0.66 J	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.2	3.1 J	1.0 U	1.0 U	0.96 J	0.69 J
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.8 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	6.1	5.0 U	1.4 J	2.0 U	1.6 J	0.87 J
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.9	2.6 J	1.8	1.0 U	1.4	2.0
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	7.1	7.9	7.9
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.9	1.4 J	1.8	1.0 U	1.5	1.1
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	37	9.4	2.5	2.1	2.4	2.7
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	20	4.4 J	5.7	9.6	8.2	9.7
Toluene	ug/L	1.0 J	12	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	47	8.5	7.9	8.7	7.5	9.0
Trichlorofluoromethane (CFC-11)	ug/L	2.4 J	5.0 U	1.3	1.0 U	1.5	1.1
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

Sample Location:		MW-41	MW-41	MW-41	MW-41	MW-41	MW-41
Sample ID:		GW-021111-DJB-212	GW-101211-DJB-103	GW-013926-041216-SAG-104	GW-013926-101816-DJB-101	GW-013926-041817-DJB-104	GW-013926-101817-DJB-101
Sample Date:		2/11/2011	10/12/2011	4/12/2016	10/18/2016	4/18/2017	10/18/2017
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.000424 J	0.005 U	0.000547 J	0.005 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	--
Barium	mg/L	0.243	0.363	0.176	0.173	0.171	0.186
Barium (dissolved)	mg/L	0.233	-	-	-	-	--
Cadmium	mg/L	0.0050 U	0.0050 U	0.000236 J	0.000313 J	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	--
Chromium	mg/L	0.0011 J	0.0165	0.00143 J	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Copper	mg/L	0.0014 J	0.0169	0.00104 J	0.00149 J	0.002 U	0.002 U
Copper (dissolved)	mg/L	0.0100 U	-	-	-		--
Iron	mg/L	0.538	11.4	0.508	0.402	-	0.101
Iron (dissolved)	mg/L	0.100 U	-	-	-	1.27	--
Lead	mg/L	0.0100 U	0.0034 J	0.000799 J	0.00105 U	0.000368 J	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Manganese	mg/L	0.147	0.191	-	0.0326	-	0.0385
Manganese (dissolved)	mg/L	0.141	-	-	-	0.128	--
Selenium	mg/L	0.0200 U	0.0200 U	0.000406 J	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-	-	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	4 U	4.0 U	4.0 U	4.0 U	4.0 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	10.0 U	10.0 U	5.00	2.00 J	4.00	3.00 U
Ammonia	mg/L	-	0.025 J	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	22	15	12 J	11	11	14
Ferrous iron	mg/L	0.100 U	-	-	-		--
Nitrate (as N)	mg/L	3.2	2.6	1.2	1.2	1.3	1.5
Orthophosphate	mg/L	-	0.0976	0.182	0.236	0.212	0.210
Sulfate	mg/L	15	15	17	16	15	16
Total organic carbon (TOC)	mg/L	2.92 U	4.36	10.7	0.402 J	1.16	1.00 U
Field Parameters							
pH	S.U	4.9	5.8	4.55	5.14	4.57	7.21
DO	mg/L	6.11	8.6	1.60	5.01	2.30	3.51
ORP	mv	320	272	402	283	407	319

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts
[1] Monitoring well MW-10A was not accessible for sampling during this event

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
Sample Location:		MW-4A	MW-4A	MW-4A	MW-4A	MW-4A	MW-4A
Sample ID:		GW-020911-DJB-207	GW-101211-DJB-106	GW-013926-041416-SAG-109	GW-013926-101916-DJB-108	GW-013926-042017-DJB-109	GW-013926-101917-DJB-107
Sample Date:		2/9/2011	10/12/2011	4/14/2016	10/19/2016	4/20/2017	10/19/2017
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	1.3	1.3	1.3	1.8
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	2.6	2.0	1.6 J
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	3.3 J	6.1	11	14	12	20
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	2.1 J	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U	2.0 J	8.4	9.4	7.0	11
Toluene	ug/L	9.1	8.4	1.0 U	1.0 U	0.58 J	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	2.3 J	4.4 J	4.8	5.8	4.3	6.2
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Shallow Bedrock Unit					
	Sample Location:	MW-4A	MW-4A	MW-4A	MW-4A	MW-4A	MW-4A
	Sample ID:	GW-020911-DJB-207	GW-101211-DJB-106	GW-013926-041416-SAG-109	GW-013926-101916-DJB-108	GW-013926-042017-DJB-109	GW-013926-101917-DJB-107
	Sample Date:	2/9/2011	10/12/2011	4/14/2016	10/19/2016	4/20/2017	10/19/2017
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.00029 J	0.000146 J	0.005 U	0.00838 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	--
Barium	mg/L	0.0180 J	0.0154 J	0.0165	0.0154	0.0155	0.0162
Barium (dissolved)	mg/L	0.0162 J	-	-	-	-	--
Cadmium	mg/L	0.0050 U	0.0050 U	0.0007 U	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	--
Chromium	mg/L	0.0100 U	0.0100 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Copper	mg/L	0.0015 J	0.0100 U	0.002 U	0.000776 J	0.000721 J	0.002 U
Copper (dissolved)	mg/L	0.0146 J	-	-	-		--
Iron	mg/L	0.330	0.319 U	0.1 U	0.1 U	-	0.1 U
Iron (dissolved)	mg/L	0.0562 J	-	-	-	0.0146 J	--
Lead	mg/L	0.108	0.0146	0.00106	0.001 U	0.00211	0.001 U
Lead (dissolved)	mg/L	0.0195	-	-	-	-	--
Manganese	mg/L	0.0073 J	0.0111 J	-	0.005 U	-	0.000573 J
Manganese (dissolved)	mg/L	0.0055 J	-	-	-	0.00166 J	--
Selenium	mg/L	0.0200 U	0.0200 U	0.000665 J	0.005 U	0.000396 J	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-	-	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	4 U	530	4.0 U	4.0 U	4.0 U	2.0 J
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	36.8	32.9	33.0	31.0	35.0	31.0
Ammonia	mg/L	-	0.302	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	1.5	1.3	1.8	1.4	1.6	1.2
Ferrous iron	mg/L	0.100 UJ	-	-	-		--
Nitrate (as N)	mg/L	0.25 U	0.25 U	0.11 J	0.059 J	0.056 J	0.25 U
Orthophosphate	mg/L	-	0.0537	0.0154	0.0193	0.0172	0.0168
Sulfate	mg/L	9.3	7.0	7.3	8.2	7.2	7.6
Total organic carbon (TOC)	mg/L	1.00 U	2.49	1.64	0.550 J	1.00 U	1.00 U
Field Parameters							
pH	S.U	6.12	7.02	6.65	-	7.14	10.46
DO	mg/L	0.14	0.61	6.36	-	0.0	0.00
ORP	mv	203	-95	252	-	207	-44

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts
[1] Monitoring well MW-10A was not accessible for sampling during this event

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Bed Rock Unit					
Sample Location:		MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A
Sample ID:		GW-021011-EAH-021	GW-101211-SAG-007	GW-013926-041316-MRB-009	GW-013926-101916-SAG-009	GW-013926-041917-SAG-006	GW-013926-101917-SDL-006
Sample Date:		2/10/2011	10/12/2011	4/13/2016	10/19/2016	4/19/2017	10/19/2017
Parameters	***Units***						
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	33	34	9.9	4.0	6.0	5.4
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.3	4.0 J	1.0 U	1.0 U	0.69 J	1.0 U
1,1-Dichloroethene	ug/L	2.4 J	1.4 J	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.5 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	150 U	16	20	14
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	20 U	20 U	20 U	20 U
Benzene	ug/L	0.65 J	0.67 J	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	0.71 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	2.3 J	2.6 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.1 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	160	120	42	37	39	51
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	38	9.3	24	27	19	8.0
Toluene	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	380	240	80	71	72	61
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	7.6	5.6	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4B

Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc. - Superfund Site
Greer, Spartanburg County, South Carolina

		Bed Rock Unit					
	Sample Location:	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A
	Sample ID:	GW-021011-EAH-021	GW-101211-SAG-007	GW-013926-041316-MRB-009	GW-013926-101916-SAG-009	GW-013926-041917-SAG-006	GW-013926-101917-SDL-006
	Sample Date:	2/10/2011	10/12/2011	4/13/2016	10/19/2016	4/19/2017	10/19/2017
Parameters	***Units***						
Metals							
Arsenic	mg/L	0.0500 U	0.0500 U	0.000367 J	0.000282 J	0.000248 J	0.005 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	--
Barium	mg/L	0.184	0.199	0.12	0.115	0.112	0.11
Barium (dissolved)	mg/L	0.171	-	-	-	-	--
Cadmium	mg/L	0.0050 U	0.0050 U	0.00116	0.000902	0.000809	0.000724
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	--
Chromium	mg/L	0.0008 J	0.0017 J	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Copper	mg/L	0.0100 U	0.0015 J	0.00219	0.000877 J	0.000727 J	0.002 U
Copper (dissolved)	mg/L	0.0100 U	-	-	-		--
Iron	mg/L	7.62	14.0	0.191	0.0728 J	-	0.1 U
Iron (dissolved)	mg/L	5.25	-	-	-	0.00824 J	--
Lead	mg/L	0.0100 U	0.0029 J	0.00034 J	0.001 U	0.001 U	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	--
Manganese	mg/L	5.24	4.85	-	2.01	-	2.03
Manganese (dissolved)	mg/L	4.97	-	-	-	2.22	--
Selenium	mg/L	0.0200 U	0.0200 U	0.000652 J	0.005 U	0.005 U	0.000789 J
Selenium (dissolved)	mg/L	0.0200 U	-		-	-	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	ug/L	200	180	41	4.0 U	4.0 U	4.0 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	49.4	38.1	25.0	20.0	20.0	21.0
Ammonia	mg/L	0.174 J	0.370	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	18	15	14	12	11	11
Ferrous iron	mg/L	5.50 J	-	-	-		--
Nitrate (as N)	mg/L	0.25 U	0.25 U	0.48	0.51	0.29	0.28
Orthophosphate	mg/L	-	0.0100 U	0.0143	0.0162	0.0197	0.0190
Sulfate	mg/L	6.6	7.1	4.1	4.1	4.4	4.8
Total organic carbon (TOC)	mg/L	0.482 J	2.00	1.52	1.00 U	1.20	0.620 J
Field Parameters							
pH	S.U	5.43	5.91	5.58	5.71	5.67	4.30
DO	mg/L	0	1.46	3.67	0.0	0.0	10.37
ORP	mv	249	54	-	278	1.94	460

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts
[1] Monitoring well MW-10A was not accessible for sampling during this event

Attachments

Attachment A
Low-Flow & Multi-Volume Purging
October 2017 Monitoring Event

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Agvatech
Ref. No.: 013926

Date: 10/20/17
Personnel: David Brytowski

Monitoring Well Data:

Well ID: MW-3
Measured Well Depth (ft): 50.1
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.0

Purging/Sampling Data:

Purging/Sampling Device: ~~Pe~~ bladder pump
Depth to Pump Intake (ft)[1]: 47'
Initial Depth to Water (ft): 43.81
Total Volume Purged (gal): 1.18

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
12:05	100	Begin							
12:25	100	44.01	.20	20.94	.238	40.0	0.00	8.83	-7
12:30	100	44.03	.22	20.17	.245	40.6	0.00	9.25	-8
12:35	100	44.04	.23	20.63	.246	37.5	0.00	9.47	-8
12:40	100	44.04	.23	21.07	.247	32.7	0.00	9.61	-8
12:45	100	44.04	.23	20.87	.246	30.9	0.00	9.65	-8
12:50	100	44.04	.23	20.77	.245	28.6	0.00	9.75	-8
	Sample Time		1231.30 + 1400						
	Sample ID		GW-013926-102017-DJB-MW-3 + 1/2 (DUP)						
			Containers and preservatives			Analysis			
			8 x VOAs, HCL-VOCs, gaseous samples			VOCs			
			2 x 250 mL, HNO3-metals						
			3 x 500 mL, unpres., H2SO4-TOC, ION scan, phos. orthos						

Notes:

(1) The pump intake will be placed at mid-point of the well screen.
(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).
(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.
(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Agvatech

Ref. No.: 013926

Date: 10/19/17

Personnel: David Brytowski

Monitoring Well Data:

Well ID: MW 4

Measured Well Depth (ft): 19.77

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 0.72

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic pump

Depth to Pump Intake (ft)[1]: 17.7

Initial Depth to Water (ft): 15.64

Total Volume Purged (gal): 1.05

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
15:40	100	Begin							
16:00	100	15.70	.16	19.43	.204	0.63	0.00	9.70	86
16:05	100	15.71	.17	19.39	.205	0.00	0.00	9.61	93
16:10	100	15.71	.17	19.81	.206	0.00	0.00	9.59	101
16:15	100	15.71	.17	19.66	.207	0.00	0.00	9.62	109
16:13	100	15.71	.17	19.60	.209	0.00	0.00	9.63	111

Sample Time 16:40

Sample ID GW-013926-101917-DJB-103

Containers and preservatives	Analysis
8xVOAs, HCL-VOC, Gaseous samples	VOCs
2x 250mL, HNO3 - metals	
3 x 500 mL, unpres., H2SO4-TOC, raw scan, phos. ortho	

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 013926

Date: 10/19/17
Personnel: David Brytowski

Monitoring Well Data:

Well ID: MW-4A
Measured Well Depth (ft): 67.4
Screen Length (ft): 27-64'
Well Diameter, D (in): 6"
Total Volume in Well (gal): 82.01

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic Pump
Depth to Pump Intake (ft)[1]: 45'
Initial Depth to Water (ft): 12.75
Total Volume Purged (gal): 0.79

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
14:20	100	Began							
14:35	100	13.05	.30	17.22	.089	0.00	0.00	10.46	-44
14:40	100	13.05	.30	17.23	.090	0.00	0.00	10.47	-46
14:45	100	13.06	.31	17.21	.089	0.00	0.00	10.43	-45
14:50	100	13.06	.31	17.27	.090	0.00	0.00	10.46	-44
	Sample Time	15:30							
	Sample ID	GW-013926-101917-DJB-107							

Containers and preservatives	Analysis
8 x 40As, HCL - VOCs, gaseous samples	VOCs
2x 250 mL, HNO_3 - metals	
3 x 500 mL, unpres., H_2SO_4 - TOC, ion scan, phos. orthos	

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

MULTI-VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Agvetech
Ref. No.: 013926

Date: 10/20/17
Personnel: David Brytowski

Monitoring Well Data:

Well ID: MW-7A
Measured Well Depth (ft): 71.23
Screen Length (ft): 5
Well Diameter (in): 2"
Total Volume in Well (gal): 4.76
Total Volume Purged (gal): 7.0

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump at the start (ft)[1]: 32
Depth to Pump at the end (ft)[1]: 70'
Initial Depth to Water (ft): 29.01
Start/End Purge Time: 9:05
Final Purge Rate (gal/min)[2]: 250

Volume Purged (gal)	*Depth to Water (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
	Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
6.75	69.52	17.46	.360	10.6	0.00	10.39	-185
	Sample Time 13:00						
	Sample ID GW-013926-102017-DJB-109						
			Containers and preservatives		*Analysis*		
			8 x VOAs. HCL-VOCs, gaseous samples		VOCs		
			2 x 250 mL, HNO_3 - metals				
			3 x 500 mL. unpes., H_2SO_4 - TOC, ion scan, phos. orthos				

Notes:

(1) The pump intake should be within one foot in the top of the standing water column, then can be lowered as needed to accommodate the drawdown. It is advised that the intake not be lowered more than three to five feet into the water column.

(2) It is recommended to set the pumping rate at a lower rate not to exceed 500 mL/min to avoid pumping the well dry if possible.

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameters' precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Agratech
Ref. No.: 013926

Date: 10/19/17
Personnel: David Bartowski

Monitoring Well Data:

Well ID: MW-10A
Measured Well Depth (ft): 52.85
Screen Length (ft): Below 29
Well Diameter, D (in): 6"
Total Volume in Well (gal): 63.10

Purging/Sampling Data:

Purging/Sampling Device: Peristaltic pump
Depth to Pump Intake (ft)[1]: 43'
Initial Depth to Water (ft): 10.80
Total Volume Purged (gal): 1.44

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
13:00	175	Began							
13:20	175	11.07	.27	18.50	.180	0.00	0.00	9.57	-197
13:25	110	11.09	.29	18.40	.181	0.00	0.00	9.67	-198
13:30	110	11.07	.27	18.47	.181	0.00	0.00	9.73	-196
13:35	110	11.07	.27	18.73	.182	0.00	0.00	9.71	-192
	Sample Time	14:10							
	Sample ID	GW-013926-101917-DJB-106							
			Containers and preservatives			Analysis			
			8 x VOAs, HCL - VOCs, gaseous samples			VOCs			
			2 x 250 mL, HNO_3 - metals						
			3 x 500 mL, amples., H_2SO_4 - TOC, IONSCAN, phos. ortho						

Notes:

(1) The pump intake will be placed at mid-point of the well screen.
(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).
(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.
(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aqua-tech

Ref. No.: 013926

Date: 10/20/17

Personnel: Stephanie L.

Monitoring Well Data:

Well ID: MW-11

Measured Well Depth (ft): 51.87

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 1.65

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 46

Initial Depth to Water (ft): 42.40

Total Volume Purged (gal): 1.90

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
Begin @ 9:07			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
9:25	150	42.50	.10	13.73	0.049	0.00	1.10	3.89	480
9:30	150	42.51	.11	12.35	0.050	0.00	7.88	3.96	482
9:35	150	42.55	.15	12.25	0.050	0.00	7.05	3.94	487
9:40	150	42.60	.20	14.15	0.048	0.00	5.77	4.01	487
9:45	150	42.60	.20	14.41	0.048	0.00	5.33	3.97	494
9:50	150	42.67	.27	14.22	0.049	0.00	5.06	3.98	496
9:55	150	42.72	.32	14.21	0.049	0.00	4.55	4.00	500
	Sample Time		10:00						
	Sample ID		GW-013926-102017-SOL-007						
			Containers and preservatives			Analysis			
			8 x VOAs, HCL - VOCS, gaseous samples			VOCs			

2x 250 mL, HNO_3 - metals

3 x 500 mL, unpres., H_2SO_4 - TOC, ION scan, phos. ortho

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.:

Date: 10/19/17

Personnel: Stephanie L.

Monitoring Well Data:

Well ID: MW-11A

Measured Well Depth (ft): 130.10

Screen Length (ft): open below 105

Well Diameter, D (in): 4

Total Volume in Well (gal): 63.05

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 105.0

Initial Depth to Water (ft): 34.75

Total Volume Purged (gal): 0.74

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
Begin @ 12:12									
12:22	80	34.77	0.02	20.46	0.000	0.00*	10.45	4.49	448
12:27	80	34.77	0.02	20.25	0.000	0.00 *	10.43	4.52	451
12:32	80	34.79	0.04	20.00	0.000	0.00 *	10.41	4.39	455
12:37	80	34.77	0.02	19.88	0.000	0.00 *	10.40	4.35	457
12:42	80	34.77	0.02	19.58	0.000	0.00*	10.43	4.25	460
12:47	80	34.77	0.02	19.40	0.000	0.00	10.37	4.30	460
	Sample Time		12:50						
	Sample ID		GW-013926-101917-SOL-006						
			Containers and preservatives			***Analysis***			
			8xVOAs, HCL- VOCs, Gaseous samples			VOCs			
			2x250mL, HNO_3 - metals						
			3x500mL, unpres., H_2SO_4						

* Turbidity not working on Horiba

→ TOC, Ion scan, orthophosph.

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 013926

Date: 10/20/17
Personnel: David Brytowski

Monitoring Well Data:

Well ID: MW-12
Measured Well Depth (ft): 41.1
Screen Length (ft): 10
Well Diameter, D (in): 2"
Total Volume in Well (gal): 1.16

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 39.5
Initial Depth to Water (ft): 34.46
Total Volume Purged (gal): 1.0

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
10:30	100								
10:50	100	34.52	.06	18.69	.075	8.08	1.06	8.81	55
10:55	100	34.52	.06	18.74	.075	11.06	1.08	8.81	56
11:00	100	34.54	.08	18.78	.075	8.65	1.10	8.83	59
11:05	100	34.54	.08	18.79	.075	8.51	1.06	8.87	63
11:10	100	34.54	.08	18.84	.075	7.76	1.03	---	68
	Sample Time		11:30						
	Sample ID		GW-013926-102017-DJB-110						
			Containers and preservatives			Analysis			
			8 x VOAs, HCL - VOCs, gaseous samples			VOCs			
			2 x 250 mL, HNO_3 - metals						
			3 x 500 mL, unpres., H_2SO_4 - TOC, ION scan, phos. orthos						

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 013925

Date: 10/18/17

Personnel:

Monitoring Well Data:

Well ID: MW-13

Measured Well Depth (ft): 95.05

Screen Length (ft): NA

Well Diameter, D (in): 6"

Total Volume in Well (gal): A~ 10 t

Purging/Sampling Data:

Purging/Sampling Device: Bladder pump

Depth to Pump Intake (ft)[1]: 90'

Initial Depth to Water (ft): 61.90

Total Volume Purged (gal): 1.66

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
15:55	180	Begin							
16:15	180	61.92	.02	17.13	.130	0.00	5.96	9.85	123
16:20	180	61.92	.02	17.12	.129	0.00	0.00	10.75	86
16:25	180	16.92	.02	16.99	.128	0.00	0.00	10.84	84
16:30	130	16.92	.02	16.96	.128	0.00	0.00	10.91	82
	Sample Time		17:45						
	Sample ID		GW-013926-101817-DJB-103						
			Containers and preservatives			Analysis			
			8x VOAs, HCL - VOCs, gaseous samples			VOCs			
			2x 250 mL, HNO_3 - metals						
			3x 500 mL, unpres., H_2SO_4 - TOC, ION scan, phos. orthos						

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Agustech
Ref. No.: 013926

Date: 10/19/17
Personnel: David Baytowsh -

Monitoring Well Data:

Well ID: MW-14
Measured Well Depth (ft): 53.41
Screen Length (ft): NA
Well Diameter, D (in): 2"
Total Volume in Well (gal): 1.31

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump Intake (ft)[1]: 50.5
Initial Depth to Water (ft): 46.12
Total Volume Purged (gal): 1.05

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
9:15	100	Began							
9:35	100	46.22	.10	15.83	.087	142	7.31	7.80	217
9:40	100	46.24	.12	16.07	.069	84.8	8.16	8.03	210
9:45	100	46.24	.12	16.17	.088	26.0	7.89	7.98	212
9:50	100	46.24	.12	16.27	.087	23.6	7.60	7.96	215
9:55	100	46.24	.12	16.23	.087	22.4	7.62	7.90	216
	Sample Time		10:45						
	Sample ID		GW-013926-101917-1	JB-104					
			Containers and preservatives			Analysis			
			8 x VOAs, HCl - VOCs, gaseous samples			VOCs			
			2x 250 mL, HNO3 - metals						
			3x 500 mL, unpres., H2SO4 - TOC. ION SCAN, phos.ortho						

Notes:

(1) The pump intake will be placed at mid-point of the well screen.
(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).
(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.
(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 013926

Date: 10/18/17

Personnel: Stephanie Lindo

Monitoring Well Data:

Well ID: MW-27

Measured Well Depth (ft): 52.0

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 2.60

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 47

Initial Depth to Water (ft): 37.1

Total Volume Purged (gal): 0.85

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
Begin @ 11:36									
11:45	150	37.55	0.45	17.91	0.190	0.00	1.03	5.81	429
11:50	75	37.30	0.20	18.13	0.190	0.00	1.05	5.82	428
11:55	75	37.30	0.20	18.47	0.191	0.00	1.00	5.81	430
12:00	75	37.30	0.20	18.78	0.190	0.00	0.99	5.78	431
12:05	75	37.30	0.20	18.88	0.189	0.00	0.94	5.76	432
12:10	75	37.30	0.20	18.88	0.189	8.98*	0.95	5.76	432

Note *: Turbidity not reading accurately

Sample Time 12:15

Sample ID GW-013926-101817-SDL-002

Containers and preservatives	Analysis
6x VOAs, HCL - VOCs	VOCs
3x 250 mL HNO3, unpreserved, - dissolved metals, orthophosphate	
2x 500 mL H2SO4, unpreserved - Nitrogen, Ammonia, 10N scan	

Notes:

(1) The pump intake will be placed at mid-point of the well screen.

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 613926

Date: 10/18/17
Personnel: Stephanie L.

Monitoring Well Data:

Well ID: MW-28
Measured Well Depth (ft): 52
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.53

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 47.0
Initial Depth to Water (ft): 37.51
Total Volume Purged (gal): 1.01

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
Begin @ 13:40			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
14:01	75	37.51	0	20.56	0.209	0.00	0.39	5.73	389
14:06	75	37.51	0	20.62	0.210	0.00	4.81	5.68	423
14:11	75	37.45	0	20.77	0.211	0.00	4.47	5.64	433
14:16	75	37.45	0	20.34	0.217	0.00	4.27	5.63	439
14:21	75	37.41	0	20.75	0.217	0.00	3.81	5.65	439
14:26	75	37.41	0	21.24	0.219	0.00	3.56	5.69	437
14:31	75	37.41	0	22.30	0.219	0.00	3.26	5.73	435
	Sample Time		14:45						
	Sample ID		GW-613926-101817-SDL-003						
			Containers and preservatives			Analysis			
			6 x VOAs, HCL - VOCs			VOCs			

3x 250 mL HNO_3, unpreserved - dissolved metals, orthophosphate
2x 500 mL H_2SO_4, unpres. - N, Ammonia, sulf., ION SCAN

Notes:

(1) The pump intake will be placed at mid-point of the well screen.
(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).
(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.
(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 013926

Date: 10/18/17
Personnel: Stephanie Lindo

Monitoring Well Data:

Well ID: MW-32
Measured Well Depth (ft): 52.0
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 2.43

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 47
Initial Depth to Water (ft): 38.04
Total Volume Purged (gal): 1.18

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
Begin @ 9:31			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
9:46	150	38.62	0.58	15.76	0.176	0.00	4.89	6.30	434
9:51	150	38.71	0.67	16.38	0.168	0.00	4.63	5.19	448
9:57	75	38.56	0.52	16.70	0.163	0.00	4.29	5.22	454
10:01	75	38.45	0.41	17.04	0.161	0.00	4.34	5.18	460
10:06	75	38.42	0.38	17.17	0.161	0.00	4.38	5.23	460
10:11	75	38.45	0.41	17.22	0.160	0.00	4.28	5.24	460
	Sample Time		10:28						
	Sample ID		GW-013926-101817-SDL-001						
			Containers and preservatives			Analysis			
			6 x VOAS - VOCs, HCL						
			2x 250mL - Dissolved metals, orthophosphate, metals						
			2x 500mL - Nitrogen, Ammonia, ION scan						

Notes:

(1) The pump intake will be placed at mid-point of the well screen.
(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).
(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.
(4) For other parameter precisions required, see the above listed.

MULTI-VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aqua-tech

Ref. No.: 013926

Date: 10/20/17

Personnel: Stephanie Lindo

Monitoring Well Data:

Well ID: MW-35

Measured Well Depth (ft): 53.40

Screen Length (ft): 10

Well Diameter (in): 2

Total Volume in Well (gal): 1.89

Total Volume Purged (gal): 5.67

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump at the start (ft)[1]: 45'

Depth to Pump at the end (ft)[1]: 45'

Initial Depth to Water (ft): 41.59

Start/End Purge Time: 10:58/12:08

Final Purge Rate (gal/min)[2]: (0.08 /min)[2] 0.0064

Volume Purged (gal)	*Depth to Water (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
	Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
Begin @ 10:58							
1.89	42.75	15.96	0.114	0.00	5.60	3.98	386
3.78	42.85	16.0	0.119	0.00	5.20	4.01	443
5.67	42.95	16.11	0.118	0.00	3.88	4.06	517
	Sample Time		12:08				
	Sample ID GW-		013926 - 102017 - SOL-008				
			Containers and preservatives		*Analysis*		
			8 x VOAs, HCL - VOCs, gaseous samples		VOCs		
			2x 250 mL, HNO_3 - metals				
			3x 500 mL, unpres., H_2SO_4 - TOC, TON, SCAN, phos-ortho				

Final depth to water: 42.15

1 volume = 1.89 gallons

Notes:

(1) The pump intake should be within one foot in the top of the standing water column, then can be lowered as needed to accommodate the drawdown. It is advised that the intake not be lowered more than three to five feet into the water column.

(2) It is recommended to set the pumping rate at a lower rate not to exceed 500 mL/min to avoid pumping the well dry if possible.

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameters' precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech

Ref. No.: 013926

Date: 10/19/17

Personnel: Stephanie Lindo

Monitoring Well Data:

Well ID: MW-39

Measured Well Depth (ft): 55.0

Screen Length (ft): 10

Well Diameter, D (in): 2

Total Volume in Well (gal): 2.88

Purging/Sampling Data:

Purging/Sampling Device: Bladder

Depth to Pump Intake (ft)[1]: 50

Initial Depth to Water (ft): 38.5

Total Volume Purged (gal): 0.61

Time	Pumping Rate [2] (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level [2] (ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)
Begin @ 9:30			Precision Required [4]:	±3 %	±0.005 or 0.01 [3]	±10 %	±10 %	±0.1 Units	±10 mV
9:40	75	40.30	1.80	10.16	0.001	0.00 *	13.43	4.36	441
9:45	60	40.05	1.55	10.37	0.001	0.00 *	13.47	4.37	448
9:50	60	39.88	1.38	11.15	0.001	0.00 *	13.42	4.48	460
9:55	60	39.80	1.30	12.41	0.001	0.00 *	13.40	4.53	466
10:00	60	39.70	1.20	13.09	0.001	0.00 *	13.24	4.58	466
10:05	60	39.65	1.15	14.04	0.000	0.00	13.21	4.47	466
	Sample Time		10:30						
	Sample ID		GW-013926-101917-SHL-005						
			Containers and preservatives			Analysis			
			6 x VOAs, 6 x VOCs			VOCs			

* Turbidity on Horiba is not working

Notes:

(1) The pump intake will be placed at mid-point of the well screen. 3 X 250mL HNO_3, unpres. - metals, phosph. ortho 2 X 500mL H_2SO_4, unpres. - N., Ammon., Sulf., IonScan

(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameter precisions required, see the above listed.

LOW-FLOW PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 013926

Date: 10/18/17
Personnel: Stephanie Lindo

Monitoring Well Data:

Well ID: MW-40
Measured Well Depth (ft): 52.0
Screen Length (ft): 10
Well Diameter, D (in): 2
Total Volume in Well (gal): 1.34

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump Intake (ft)[1]: 47.0
Initial Depth to Water (ft): 44.34
Total Volume Purged (gal): 0.79

Time	*Pumping Rate [2] (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level [2] (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
			Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
Begin @ 16:10									
16:20	75	44.55	0.21	35.08	0.00	0.00	7.61	6.76	328
16:25	75	44.57	0.23	35.16	0.00	0.00	7.65	6.74	329
16:30	75	44.60	0.26	35.40	0.00	0.00	7.74	6.64	332
16:35	75	44.45	0.11	34.85	0.029	0.00	6.21	6.15	370
16:40	75	44.58	0.24	33.90	0.077	0.00	3.62	5.38	400
16:45	75	44.45	0.11	30.48	0.086	0.00	3.63	5.17	430
16:50	75	44.50	0.16	30.74	0.087	0.00	3.64	5.11	436
	Sample Time		16:55						
	Sample ID		GW-013926-101817-SDL-004						
			Containers and preservatives			*Analysis*			
			6 X VOA, HCL - VOCs			VOCs			

3 X 250 mL HNO_3 - unpres. - dissolved metals, phosph. ortho
2 X 500 mL H_2SO_4, unpres. - N., Ammon., Sulf., ION Scan

Notes:

(1) The pump intake will be placed at mid-point of the well screen.
(2) The drawdown from the initial water level should be minimal. The pumping rate should be adjusted to minimize drawdown (between 50 and 500 mL/min).
(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.
(4) For other parameter precisions required, see the above listed.

MULTI-VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: ~~[illegible]~~ Aquatech.

Ref. No.: 013926

Date: 10/18/17

Personnel: David Brytowsh.

Monitoring Well Data:

Well ID: MW-41

Measured Well Depth (ft): 93.60

Screen Length (ft): 5'

Well Diameter (in): 2'

Total Volume in Well (gal): 2.75

Total Volume Purged (gal): 8.25

Purging/Sampling Data:

Purging/Sampling Device: bladder-pump

Depth to Pump at the start (ft)[1]: 79'

Depth to Pump at the end (ft)[1]: 81'

Initial Depth to Water (ft): 76.58

Start/End Purge Time: 11:05 12:55

Final Purge Rate (gal/min)[2]: 300 ml/min

Volume Purged (gal)	*Depth to Water (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
Precision Required [4]:		*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
2.75	77.63	18.48	.113	19.5	4.31	6.46	328
5.5	77.90	18.35	.116	15.6	3.54	7.02	324
8.25	78.21	18.92	.113	14.1	3.51	7.21	319

Sample Time 13:00

Sample ID GW-013926-101817-DJB-101

Containers and preservatives	*Analysis*
8 x VOAs, HCL-VOCs, gaseous samples	VOCs
2x250 mL, HNO_3 - metals	
3x500 mL, unpres., H_2SO_4 - TOC, ION Scan, phos-ortho	

Notes:

(1) The pump intake should be within one foot in the top of the standing water column, then can be lowered as needed to accommodate the drawdown. It is advised that the intake not be lowered more than three to five feet into the water column.

(2) It is recommended to set the pumping rate at a lower rate not to exceed 500 mL/min to avoid pumping the well dry if possible.

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameters' precisions required, see the above listed.

MULTI-VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: (Aquatec)
Ref. No.: 013926

Date: 10/18/17
Personnel: David Brytowski

Monitoring Well Data:

Well ID: MW-42
Measured Well Depth (ft): 64
Screen Length (ft): 5'
Well Diameter (in): 2"
Total Volume in Well (gal): 3.1
Total Volume Purged (gal): 9.5

Purging/Sampling Data:

Purging/Sampling Device: bladder pump
Depth to Pump at the start (ft)[1]: 48
Depth to Pump at the end (ft)[1]: ---
Initial Depth to Water (ft): 44.92
Start/End Purge Time: 13:35
Final Purge Rate (gal/min)[2]: 0.1 gal/min

Volume Purged (gal)	*Depth to Water (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
	Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
3.1	52.62	19.39	.148	14.5	0.00	6.85	130
6.25	52.98	19.56	.148	11.5	0.00	6.83	130
9.5	53.11	19.60	.148	5.35	0.00	---	131
	Sample Time 15:10						
	Sample ID CW-013926.101817.DJB-102						
			Containers and preservatives		***Analysis***		
			8 X VOAs, HCL - VOCs, 2 amber samples		VOCs		
			2 X 250 mL, HNO3 - metals				
			3 X 500 mL, unpres., H2SO4 - TOC, ION Scan, orthophos.				

Notes:

(1) The pump intake should be within one foot in the top of the standing water column, then can be lowered as needed to accommodate the drawdown. It is advised that the intake not be lowered more than three to five feet into the water column.

(2) It is recommended to set the pumping rate at a lower rate not to exceed 500 mL/min to avoid pumping the well dry if possible.

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameters' precisions required, see the above listed.

MULTI-VOLUME PURGING & SAMPLING RECORD

Project Data:

Project Name: Aquatech
Ref. No.: 013924

Date: 10/19/17
Personnel: David Brytowski

Monitoring Well Data:

Well ID: TW-2
Measured Well Depth (ft): 59.11
Screen Length (ft): 10
Well Diameter (in): 2"
Total Volume in Well (gal): 1.73
Total Volume Purged (gal): 5.25

Purging/Sampling Data:

Purging/Sampling Device: Bladder
Depth to Pump at the start (ft)[1]: 50.5
Depth to Pump at the end (ft)[1]: 56.5
Initial Depth to Water (ft): 48.30
Start/End Purge Time: 10:30
Final Purge Rate (gal/min)[2]: 0.07/min

Volume Purged (gal)	*Depth to Water (ft)*	*Temperature °C*	*Conductivity (mS/cm)*	*Turbidity NTU*	*DO (mg/L)*	*pH*	*ORP (mV)*
	Precision Required [4]:	*±3 %*	*±0.005 or 0.01 [3]*	*±10 %*	*±10 %*	*±0.1 Units*	*±10 mV*
10:30	275						
1.75	54.65	17.59	.083	37.2	9.18	9.53	29
3.5	55.03	---	.082	21.5	9.47	9.56	33
5.25	55.32	---	.081	22.4	9.59	9.58	34
	Sample Time	11:45					
	Sample ID	GW-	013924-101917-DJB-105				
			Containers and preservatives		***Analysis***		
			8 x VOAs, HCL - VOCs, gaseous samples		VOCs		

2x 250 mL, HNO_3 - metals
3 x 500 mL, unpres., H_2SO_4 - TOC, ION scan, ortho. phosph.

Notes:

(1) The pump intake should be within one foot in the top of the standing water column, then can be lowered as needed to accommodate the drawdown. It is advised that the intake not be lowered more than three to five feet into the water column.

(2) It is recommended to set the pumping rate at a lower rate not to exceed 500 mL/min to avoid pumping the well dry if possible.

(3) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

(4) For other parameters' precisions required, see the above listed.

Attachment B

Sample Keys, Data Quality Assessment, Validation Memorandums, Analytical Data Reports for October 2017

Memorandum

November 3, 2017

To:	Terefe Mazengia	Ref. No.:	013926
	PM		
From:	Paul McMahon/adh/30	Tel:	716-205-1970

Subject: **Analytical Results and Reduced Validation**
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in support of the Semiannual Groundwater Sampling Program at the Greer, South Carolina Site during October 2017. Samples were submitted to Analytical Environmental Services, Inc. (AES) located in Atlanta, Georgia. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodologies is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS), and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", United States Environmental Protection Agency (USEPA) 540-R-10-011, January 2010

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Most method blank results were non-detect. Low levels of chloride and metals were detected in some method blanks. All investigative sample results that were similar to the blank concentrations were qualified as non-detect (see Table 4).

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compounds (VOCs) and ethylene dibromide (EDB) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries were acceptable.

5. Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

5.1 Organic Analyses

The LCS/LCSD contained all compounds of interest. Most LCS recoveries and all RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision. A high bromoform recovery was reported; all associated sample results were non-detect and were not impacted by the indicated high bias.

5.2 Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with known concentrations of the analytes of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

The laboratory performed site-specific MS/MSD analyses internally.

6.1 Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

6.2 Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits or met the above criteria, demonstrating acceptable analytical accuracy and precision.

7. Duplicate Sample Analyses – Inorganic Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory internally. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

8. Field QA/QC Samples

The field QA/QC consisted of four trip blank samples and one field duplicate sample set.

8.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, four trip blanks were submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

8.2 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

Most field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision. Data which did indicate variability were qualified as estimated (see Table 5).

9. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

10. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Sample Identification	Location	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters												Comments
				TCL VOCs + TMBs	TCL VOCs	1,4-Dioxane	Dissolved Gases	EDB	Ammonia	Alkalinity	Metals	Chloride	Nitrate, Sulfate	Orthophosphate	TOC	
GW-013926-101817-SDL-001	MW-32	10/18/2017	10:28		X	X		X	X		X		X	X		
GW-013926-101817-SDL-002	MW-27	10/18/2017	12:15		X	X		X	X		X		X	X		
GW-013926-101817-SDL-003	MW-28	10/18/2017	14:45		X	X		X	X		X		X	X		
GW-013926-101817-SDL-004	MW-40	10/18/2017	16:55		X	X		X	X		X		X	X		
GW-013926-101917-SDL-005	MW-39	10/19/2017	15:35		X	X		X	X		X		X	X		
GW-013926-101917-SDL-006	MW-11A	10/19/2017	12:50	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101917-SDL-007	MW-11	10/19/2017	10:00		X	X	X	X	X	X	X	X	X	X	X	
GW-013926-102017-SDL-008	MW-35	10/20/2017	12:08		X	X	X	X	X	X	X	X	X	X	X	
GW-013926-101817-DJB-101	MW-41	10/18/2017	13:00	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101817-DJB-102	MW-42	10/18/2017	15:10	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101817-DJB-103	MW-13	10/18/2017	16:45	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101917-DJB-104	MW-14	10/19/2017	10:45	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101917-DJB-105	TW-2	10/19/2017	11:45	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101917-DJB-106	MW-10A	10/19/2017	14:10	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101917-DJB-107	MW-4A	10/19/2017	15:30	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-101917-DJB-108	MW-4	10/19/2017	16:40	X		X	X	X	X	X	X	X	X	X	X	
GW-013926-102017-DJB-109	MW-7A	10/20/2017	13:00		X	X	X	X	X	X	X	X	X	X	X	
GW-013926-102017-DJB-110	MW-12	10/20/2017	11:30		X	X	X	X	X	X	X	X	X	X	X	
GW-013926-102017-DJB-111	MW-3	10/20/2017	13:30		X	X	X	X	X	X	X	X	X	X	X	
GW-013926-102017-DJB-112	MW-3	10/20/2017	14:00		X	X	X	X	X	X	X	X	X	X	X	Duplicate of GW-013926-102017-DJB-111

Notes:

EDB - Ethylene Dibromide
TCL - Target Compound List
TMBs - Trimethylbenzenes
TOC - Total Organic Carbon
VOCs - Volatile Organic Compounds

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-3	MW-3	MW-4	MW-4A
Sample Name:		GW-013926-102017-DJB-111	GW-013926-102017-DJB-112	GW-013926-101917-DJB-108	GW-013926-101917-DJB-107
Sample Date:		10/20/2017	10/20/2017	10/19/2017	10/19/2017
			Duplicate		
Parameters	**Unit**				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	75	77	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	34	31	4.9	1.0 U
1,1,2-Trichloroethane	µg/L	5.8	5.6	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	23	24	13	1.8
1,1-Dichloroethene	µg/L	11	11	5.2	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	--	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	3.3	3.0	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	3.8	3.3	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	--	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.9	1.9	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	2.5	2.5	0.88 J	1.0 U
1,4-Dioxane	µg/L	180	200	68	1.6 J
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	2.7	2.5	3.3	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	7.9	7.6	1.0 U	1.0 U
Chloroethane	µg/L	3.7	3.8	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	7.6	7.0	1.0	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	340	340	110	20
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
VOCs-Continued					
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-3	MW-3	MW-4	MW-4A
Sample Name:		GW-013926-102017-DJB-111	GW-013926-102017-DJB-112	GW-013926-101917-DJB-108	GW-013926-101917-DJB-107
Sample Date:		10/20/2017	10/20/2017	10/19/2017	10/19/2017
			Duplicate		
Parameters	**Unit**				
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	220	150	29	11
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	5.6	5.1	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	46	44	85	6.2
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	40	39	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dissolved Gases					
Ethane	µg/L	3.6 J	4.1 J	9.0 U	9.0 U
Ethene	µg/L	7.0 U	7.0 U	7.0 U	7.0 U
Methane	µg/L	170	200	28	2.0 J
Metals					
Mercury	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Antimony	µg/L	--	--	--	--
Arsenic	µg/L	2.28 J	2.34 J	8.84 U	8.38 U
Barium	µg/L	300	289	189	16.2
Beryllium	µg/L	--	--	--	--
Cadmium	µg/L	0.295 J	0.244 J	0.189 J	0.700 U
Calcium	µg/L	--	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Cobalt	µg/L	--	--	--	--
Copper	µg/L	2.00 UJ	58.3 J	2.00 U	2.00 U
Iron	µg/L	5000	5300	100 U	100 U
Iron (dissolved)	µg/L	--	--	--	--
Lead	µg/L	1.91 J	0.524 J	1.00 U	1.00 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-3	MW-3	MW-4	MW-4A
Sample Name:		GW-013926-102017-DJB-111	GW-013926-102017-DJB-112	GW-013926-101917-DJB-108	GW-013926-101917-DJB-107
Sample Date:		10/20/2017	10/20/2017	10/19/2017	10/19/2017
			Duplicate		
Parameters	**Unit**				
Metals-Continued					
Magnesium	µg/L	--	--	--	--
Manganese	µg/L	9930	9580	3560	0.573 J
Manganese (dissolved)	µg/L	--	--	--	--
Nickel	µg/L	--	--	--	--
Potassium	µg/L	--	--	--	--
Selenium	µg/L	5.00 U	5.00 U	1.18 J	5.00 U
Silver	µg/L	--	--	--	--
Sodium	µg/L	--	--	--	--
Thallium	µg/L	--	--	--	--
Vanadium	µg/L	--	--	--	--
Zinc	µg/L	--	--	--	--
General Chemistry					
Alkalinity, total (as CaCO3)	mg/L	28.0	29.0	44.0	31.0
Ammonia	mg/L	0.058	0.057	0.062	0.020 U
Chloride	mg/L	41	41	15	1.2
Nitrate (as N)	mg/L	0.25 U	0.25 U	3.4	0.25 U
Orthophosphate	mg/L	0.0449 J	0.0232 J	0.0365	0.0168
Sulfate	mg/L	22	21	13	7.6
Total organic carbon (TOC)	mg/L	8.44	8.53	1.00 U	1.00 U
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value
UJ - Not detected; associated reporting limit is estimated
-- - Not analyzed

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-7A	MW-10A	MW-11	MW-11A
Sample Name:		GW-013926-102017-DJB-109	GW-013926-101917-DJB-106	GW-013926-102017-SDL-007	GW-013926-101917-SDL-006
Sample Date:		10/20/2017	10/19/2017	10/20/2017	10/19/2017
Parameters	**Unit**				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	5.7	5.4
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	1.0 U	--	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	1.0 U	--	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	26	1.7 J	5.8	14
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	2.7	1.0 U	22	51
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
VOCs-Continued					
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-7A	MW-10A	MW-11	MW-11A
Sample Name:		GW-013926-102017-DJB-109	GW-013926-101917-DJB-106	GW-013926-102017-SDL-007	GW-013926-101917-SDL-006
Sample Date:		10/20/2017	10/19/2017	10/20/2017	10/19/2017
Parameters	**Unit**				
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	19	8.0
Toluene	µg/L	1.0 U	0.73 J	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	42	61
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.6	3.8	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dissolved Gases					
Ethane	µg/L	9.0 U	9.0 U	9.0 U	9.0 U
Ethene	µg/L	4.7 J	7.0 U	7.0 U	7.0 U
Methane	µg/L	3600	1500	26	4.0 U
Metals					
Mercury	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Antimony	µg/L	--	--	--	--
Arsenic	µg/L	0.866 J	10.9 U	0.318 J	5.00 U
Barium	µg/L	92.0	40.3	70.5	110
Beryllium	µg/L	--	--	--	--
Cadmium	µg/L	0.700 U	0.700 U	0.267 J	0.724
Calcium	µg/L	--	--	--	--
Chromium	µg/L	5.00 U	5.00 U	5.00 U	5.00 U
Cobalt	µg/L	--	--	--	--
Copper	µg/L	2.00 U	2.00 U	2.00 U	2.00 U
Iron	µg/L	189	406	28.0 J	100 U
Iron (dissolved)	µg/L	--	--	--	--
Lead	µg/L	0.417 J	4.62	1.00 U	1.00 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-7A	MW-10A	MW-11	MW-11A
Sample Name:		GW-013926-102017-DJB-109	GW-013926-101917-DJB-106	GW-013926-102017-SDL-007	GW-013926-101917-SDL-006
Sample Date:		10/20/2017	10/19/2017	10/20/2017	10/19/2017
Parameters	**Unit**				
Metals-Continued					
Magnesium	µg/L	--	--	--	--
Manganese	µg/L	147	1440	509	2030
Manganese (dissolved)	µg/L	--	--	--	--
Nickel	µg/L	--	--	--	--
Potassium	µg/L	--	--	--	--
Selenium	µg/L	5.00 U	5.00 U	5.00 U	0.789 J
Silver	µg/L	--	--	--	--
Sodium	µg/L	--	--	--	--
Thallium	µg/L	--	--	--	--
Vanadium	µg/L	--	--	--	--
Zinc	µg/L	--	--	--	--
General Chemistry					
Alkalinity, total (as CaCO3)	mg/L	145	82.0	8.00	21.0
Ammonia	mg/L	2.25	1.03	0.020 U	0.020 U
Chloride	mg/L	7.4	1.4	6.6	11
Nitrate (as N)	mg/L	0.25 U	0.15 J	0.31	0.28
Orthophosphate	mg/L	0.341	0.115	0.0100 U	0.0190
Sulfate	mg/L	4.6	6.7	0.52 J	4.8
Total organic carbon (TOC)	mg/L	9.40	1.00 U	0.738 J	0.620 J
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value
UJ - Not detected; associated reporting limit is estimated
-- - Not analyzed

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-12	MW-13	MW-14	MW-27
Sample Name:		GW-013926-102017-DJB-110	GW-013926-101817-DJB-103	GW-013926-101917-DJB-104	GW-013926-101817-SDL-002
Sample Date:		10/20/2017	10/18/2017	10/19/2017	10/18/2017
Parameters	**Unit**				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	6.2	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	7.7	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	7.7	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	0.56 J	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	--
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	9.5	66	2.0 U	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	2.2	1.0 U	0.48 J
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	18	130	1.0 U	1.6
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
VOCs-Continued					
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-12	MW-13	MW-14	MW-27
Sample Name:		GW-013926-102017-DJB-110	GW-013926-101817-DJB-103	GW-013926-101917-DJB-104	GW-013926-101817-SDL-002
Sample Date:		10/20/2017	10/18/2017	10/19/2017	10/18/2017
Parameters	**Unit**				
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.9
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	38	46	1.0 U	870
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	0.51 J	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	67	200	1.0 U	4.3
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	3.2 J	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	0.80 J	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dissolved Gases					
Ethane	µg/L	9.0 U	9.0 U	9.0 U	--
Ethene	µg/L	7.0 U	7.0 U	7.0 U	--
Methane	µg/L	16	4.0 U	4.0 U	--
Metals					
Mercury	mg/L	--	--	--	0.00020 U
Aluminum	µg/L	--	--	--	429
Antimony	µg/L	--	--	--	5.00 U
Arsenic	µg/L	0.424 J	5.00 U	6.56 U	3.72 J
Barium	µg/L	111	81.9	44.5	67.2
Beryllium	µg/L	--	--	--	1.00 U
Cadmium	µg/L	0.700 U	0.700 U	0.700 U	0.700 U
Calcium	µg/L	--	--	--	1420
Chromium	µg/L	4.00 J	5.00 U	5.00 U	3.17 J
Cobalt	µg/L	--	--	--	0.659 J
Copper	µg/L	2.00 U	2.00 U	2.00 U	2.00 U
Iron	µg/L	124	12.1 J	231	194
Iron (dissolved)	µg/L	--	--	--	100 U
Lead	µg/L	0.455 J	1.11	1.00 U	0.287 J

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-12	MW-13	MW-14	MW-27
Sample Name:		GW-013926-102017-DJB-110	GW-013926-101817-DJB-103	GW-013926-101917-DJB-104	GW-013926-101817-SDL-002
Sample Date:		10/20/2017	10/18/2017	10/19/2017	10/18/2017
Parameters	**Unit**				
Metals-Continued					
Magnesium	µg/L	--	--	--	651
Manganese	µg/L	78.0	11.3	3.59 J	69.5
Manganese (dissolved)	µg/L	--	--	--	9.90
Nickel	µg/L	--	--	--	1.59 J
Potassium	µg/L	--	--	--	898
Selenium	µg/L	5.00 U	5.00 U	1.04 J	0.360 J
Silver	µg/L	--	--	--	1.00 U
Sodium	µg/L	--	--	--	36700
Thallium	µg/L	--	--	--	1.00 U
Vanadium	µg/L	--	--	--	44.6
Zinc	µg/L	--	--	--	3.22 J
General Chemistry					
Alkalinity, total (as CaCO3)	mg/L	8.00	31.0	18.0	--
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	9.1	14	2.1	--
Nitrate (as N)	mg/L	1.5	0.69	1.7	5.2
Orthophosphate	mg/L	0.0224	0.188	0.0133	5.16
Sulfate	mg/L	2.5	0.89 J	15	8.9
Total organic carbon (TOC)	mg/L	1.00 U	0.391 J	1.00 U	--
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value
UJ - Not detected; associated reporting limit is estimated
-- - Not analyzed

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-28	MW-32	MW-35	MW-39
Sample Name:		GW-013926-101817-SDL-003	GW-013926-101817-SDL-001	GW-013926-102017-SDL-008	GW-013926-101917-SDL-005
Sample Date:		10/18/2017	10/18/2017	10/20/2017	10/19/2017
Parameters	**Unit**				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	8.6	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	--	--	--
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	2.0 U	2.0 U	11	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	4.2 J	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	0.51 J	0.56 J	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.9	2.3	29	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
VOCs-Continued					
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-28	MW-32	MW-35	MW-39
Sample Name:		GW-013926-101817-SDL-003	GW-013926-101817-SDL-001	GW-013926-102017-SDL-008	GW-013926-101917-SDL-005
Sample Date:		10/18/2017	10/18/2017	10/20/2017	10/19/2017
Parameters	**Unit**				
Methyl tert butyl ether (MTBE)	µg/L	2.2	1.7	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	960	1100	17	79
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	5.0	6.0	96	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dissolved Gases					
Ethane	µg/L	--	--	9.0 U	--
Ethene	µg/L	--	--	7.0 U	--
Methane	µg/L	--	--	3.8 J	--
Metals					
Mercury	mg/L	0.00020 U	0.00020 U	--	0.00020 U
Aluminum	µg/L	1570	267	--	90.4
Antimony	µg/L	5.00 U	5.00 U	--	5.00 U
Arsenic	µg/L	7.15	5.00 U	0.397 J	5.00 U
Barium	µg/L	277	70.5	186	234
Beryllium	µg/L	1.00 U	1.00 U	--	0.323 J
Cadmium	µg/L	0.700 U	0.162 J	0.700 U	0.772
Calcium	µg/L	1280	2560	--	778
Chromium	µg/L	5.15	4.81 J	5.00 U	5.00 U
Cobalt	µg/L	1.31 J	0.590 J	--	3.34 J
Copper	µg/L	2.00 U	1.13 J	2.00 U	2.00 U
Iron	µg/L	714	273	100 U	44.4 J
Iron (dissolved)	µg/L	100 U	100 U	--	100 U
Lead	µg/L	0.787 J	0.448 J	1.00 U	1.00 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-28	MW-32	MW-35	MW-39
Sample Name:		GW-013926-101817-SDL-003	GW-013926-101817-SDL-001	GW-013926-102017-SDL-008	GW-013926-101917-SDL-005
Sample Date:		10/18/2017	10/18/2017	10/20/2017	10/19/2017
Parameters	**Unit**				
Metals-Continued					
Magnesium	µg/L	518	792	--	3240
Manganese	µg/L	63.3	10.9	242	9.55
Manganese (dissolved)	µg/L	2.86 J	2.51 J	--	9.23
Nickel	µg/L	1.66 J	1.24 J	--	5.00 U
Potassium	µg/L	1200	1270	--	3220
Selenium	µg/L	0.562 J	0.476 J	5.00 U	5.00 U
Silver	µg/L	1.00 U	0.0212 J	--	1.00 U
Sodium	µg/L	48700	28800	--	7790
Thallium	µg/L	1.00 U	1.00 U	--	1.00 U
Vanadium	µg/L	50.1	6.29 U	--	5.00 U
Zinc	µg/L	5.13 J	3.30 J	--	6.57 J
General Chemistry					
Alkalinity, total (as CaCO3)	mg/L	--	--	4.00	--
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	--	--	29	--
Nitrate (as N)	mg/L	3.3	5.5	0.29	5.1
Orthophosphate	mg/L	8.99	1.60	0.00873 J	0.0193
Sulfate	mg/L	6.2	8.7	2.6	2.1
Total organic carbon (TOC)	mg/L	--	--	1.56	--
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value
UJ - Not detected; associated reporting limit is estimated
-- - Not analyzed

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-40	MW-41	MW-42	TW-2
Sample Name:		GW-013926-101817-SDL-004	GW-013926-101817-DJB-101	GW-013926-101817-DJB-102	GW-013926-101917-DJB-105
Sample Date:		10/18/2017	10/18/2017	10/18/2017	10/19/2017
Parameters	**Unit**				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	0.93 J	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	0.69 J	13	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.5	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	24	1.0 U
1,1-Dichloroethene	µg/L	2.0 U	0.87 J	24	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	2.0	2.5	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	--	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	µg/L	2.0 U	7.9	330	2.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	20 U	20 U	20 U	20 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.1	15	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	2.7	330	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
VOCs-Continued					
Methyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-40	MW-41	MW-42	TW-2
Sample Name:		GW-013926-101817-SDL-004	GW-013926-101817-DJB-101	GW-013926-101817-DJB-102	GW-013926-101917-DJB-105
Sample Date:		10/18/2017	10/18/2017	10/18/2017	10/19/2017
Parameters	**Unit**				
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	12	9.7	63	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	0.68 J	2.0 U
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	1.0 U	9.0	320	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.1	1.1	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.2	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dissolved Gases					
Ethane	µg/L	--	9.0 U	9.0 U	9.0 U
Ethene	µg/L	--	7.0 U	3.7 J	7.0 U
Methane	µg/L	--	4.0 U	74	44
Metals					
Mercury	mg/L	0.00020 U	--	--	--
Aluminum	µg/L	363	--	--	--
Antimony	µg/L	5.00 U	--	--	--
Arsenic	µg/L	5.00 U	5.00 U	5.00 U	7.39 U
Barium	µg/L	197	186	413	23.4
Beryllium	µg/L	1.00 U	--	--	--
Cadmium	µg/L	0.529 J	0.700 U	0.241 J	0.700 U
Calcium	µg/L	1190	--	--	--
Chromium	µg/L	5.00 U	5.00 U	6.20	5.00 U
Cobalt	µg/L	8.38	--	--	--
Copper	µg/L	2.00 U	2.00 U	1.25 J	2.00 U
Iron	µg/L	190	101	4160	248
Iron (dissolved)	µg/L	100 U	--	--	--
Lead	µg/L	2.24	1.00 U	2.28	1.00 U

Table 2

Analytical Results Summary
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Location ID:		MW-40	MW-41	MW-42	TW-2
Sample Name:		GW-013926-101817-SDL-004	GW-013926-101817-DJB-101	GW-013926-101817-DJB-102	GW-013926-101917-DJB-105
Sample Date:		10/18/2017	10/18/2017	10/18/2017	10/19/2017
Parameters	**Unit**				
Metals-Continued					
Magnesium	µg/L	2220	--	--	--
Manganese	µg/L	493	38.5	291	89.5
Manganese (dissolved)	µg/L	403	--	--	--
Nickel	µg/L	4.36 J	--	--	--
Potassium	µg/L	4500	--	--	--
Selenium	µg/L	0.825 J	5.00 U	0.401 J	0.387 J
Silver	µg/L	1.00 U	--	--	--
Sodium	µg/L	7060	--	--	--
Thallium	µg/L	0.477 J	--	--	--
Vanadium	µg/L	5.00 U	--	--	--
Zinc	µg/L	11.8	--	--	--
General Chemistry					
Alkalinity, total (as CaCO3)	mg/L	--	3.00 U	41.0	27.0
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	--	14	12	1.9
Nitrate (as N)	mg/L	0.81	1.5	1.0	1.2
Orthophosphate	mg/L	0.0120	0.210	0.154	0.0820
Sulfate	mg/L	1.8	16	0.50 J	2.1
Total organic carbon (TOC)	mg/L	--	1.00 U	1.00 U	2.15
Fumigant					
1,2-Dibromoethane (Ethylene dibromide)	µg/L	0.020 U	0.020 U	0.020 U	0.020 U

Notes:

J - Estimated concentration
U - Not present at or above the associated value
UJ - Not detected; associated reporting limit is estimated
-- - Not analyzed

Table 3

Analytical Methods
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260B	Groundwater	14
1,4-Dioxane	SW-846 8260B (SIM)	Groundwater	14
Dissolved Gases	RSK 175	Groundwater	14
Ethylene Dibromide (EDB)	SW-846 8011	Groundwater	14
Total and Dissolved Metals	SW-846 6020B	Groundwater	180
Mercury	SW-846 7470A	Groundwater	28
Alkalinity	SM 2320 B	Groundwater	14
Total Organic Carbon (TOC)	SW-846 9060A	Groundwater	28
Nitrate	SW-846 9056A	Groundwater	48 hours
Sulfate, Chloride	SW-846 9056A	Groundwater	28
Orthophosphate	EPA 365.1	Groundwater	48 hours
Ammonia	EPA 350.1	Groundwater	28

Notes:

EPA - Referenced from "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986 with all subsequent revisions
RSK - "Analysis of Dissolved Methane, Ethane, and Ethylene in Ground Water by a Standard Gas Chromatographic Technique", Journal of Chromatographic Science, Vol. 36, May 1998
SW-846 - Referenced from "Methods for the Chemical Analysis of Water and Wastes", (MCAWW), USEPA-600/4-79-020, March 1983 and subsequent revisions
SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions
SIM - Selected Ion Monitoring

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Parameter	Analyte	Analysis Date	Blank Result	Sample ID	Original Result	Qualified Result	Units
Metals	Copper	10/20/2017	0.183 J	GW-013926-101817-DJB-101	0.843 J	2.00 U	µg/L
				GW-013926-101817-DJB-103	0.574 J	2.00 U	µg/L
				GW-013926-101817-SDL-002	0.826 J	2.00 U	µg/L
				GW-013926-101817-SDL-003	0.871 J	2.00 U	µg/L
				GW-013926-101817-SDL-004	0.793 J	2.00 U	µg/L
Metals	Beryllium	10/20/2017	0.183 J	GW-013926-101817-SDL-001	0.191 J	1.00 U	µg/L
				GW-013926-101817-SDL-003	0.426 J	1.00 U	µg/L
				GW-013926-101817-SDL-004	0.346 J	1.00 U	µg/L
Metals	Vanadium	10/20/2017	2.62 J	GW-013926-101817-SDL-001	6.29 J	6.29 U	µg/L
				GW-013926-101817-SDL-004	1.84 J	5.00 U	µg/L
Metals	Chromium	10/20/2017	0.312 J	GW-013926-101817-DJB-101	0.793 J	5.00 U	µg/L
				GW-013926-101817-DJB-103	0.362 J	5.00 U	µg/L
				GW-013926-101817-SDL-004	0.748 J	5.00 U	µg/L
Metals	Arsenic	10/20/2017	0.399J	GW-013926-101817-DJB-101	0.612 J	5.00 U	µg/L
				GW-013926-101817-DJB-102	1.40 J	5.00 U	µg/L
				GW-013926-101817-DJB-103	0.644 J	5.00 U	µg/L
				GW-013926-101817-SDL-001	0.815 J	5.00 U	µg/L
				GW-013926-101817-SDL-004	0.359 J	5.00 U	µg/L
Metals	Arsenic	10/23/2017	4.00 J	GW-013926-101917-SDL-006	4.38 J	5.00 U	µg/L
				GW-013926-101917-DJB-104	6.56	6.56 U	µg/L
				GW-013926-101917-DJB-105	7.39	7.39 U	µg/L
				GW-013926-101917-DJB-106	10.9	10.9 U	µg/L
				GW-013926-101917-DJB-107	8.38	8.38 U	µg/L
				GW-013926-101917-DJB-108	8.84	8.84 U	µg/L
Metals	Chromium	10/23/2017	0.264 J	GW-013926-101917-SDL-006	0.415 J	5.00 U	µg/L
				GW-013926-101917-DJB-104	0.713 J	5.00 U	µg/L
				GW-013926-101917-DJB-105	1.000 J	5.00 U	µg/L
				GW-013926-101917-DJB-106	0.284 J	5.00 U	µg/L
				GW-013926-101917-DJB-107	0.257 J	5.00 U	µg/L
				GW-013926-101917-DJB-108	0.352 J	5.00 U	µg/L
Metals	Copper	10/23/2017	0.646 J	GW-013926-101917-SDL-006	0.897 J	2.00 U	µg/L
				GW-013926-101917-DJB-104	0.671 J	2.00 U	µg/L
				GW-013926-101917-DJB-105	1.74 J	2.00 U	µg/L
				GW-013926-101917-DJB-106	0.709 J	2.00 U	µg/L
				GW-013926-101917-DJB-107	0.554 J	2.00 U	µg/L
				GW-013926-101917-DJB-108	0.738 J	2.00 U	µg/L
Metals	Lead	10/23/2017	0.324 J	GW-013926-101917-DJB-104	0.315 J	1.00 U	µg/L
				GW-013926-101917-DJB-105	0.298 J	1.00 U	µg/L
				GW-013926-101917-DJB-107	0.600 J	1.00 U	µg/L
Metals	Arsenic	10/23/2017	0.198 J	GW-013926-101917-SDL-005	0.394 J	5.00 U	µg/L
Metals	Chromium	10/23/2017	0.361 J	GW-013926-101917-SDL-005	1.20 J	5.00 U	µg/L
Metals	Copper	10/23/2017	0.838 J	GW-013926-101917-SDL-005	0.760 J	2.00 U	µg/L
Metals	Nickel	10/23/2017	0.387 J	GW-013926-101917-SDL-005	0.858 J	5.00 U	µg/L
Metals	Vanadium	10/23/2017	1.99 J	GW-013926-101917-SDL-005	3.15 J	5.00 U	µg/L

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Parameter	Analyte	Analysis Date	Blank Result	Sample ID	Original Result	Qualified Result	Units
Metals	Chromium	10/25/2017	0.356 J	GW-013926-102017-SDL-007	0.395 J	5.00 U	µg/L
				GW-013926-102017-SDL-008	0.553 J	5.00 U	µg/L
				GW-013926-102017-DJB-109	0.330 J	5.00 U	µg/L
				GW-013926-102017-DJB-111	0.600 J	5.00 U	µg/L
				GW-013926-102017-DJB-112	0.595 J	5.00 U	µg/L
Metals	Copper	10/25/2017	0.235 J	GW-013926-102017-SDL-007	0.389 J	2.00 U	µg/L
				GW-013926-102017-SDL-008	0.439 J	2.00 U	µg/L
				GW-013926-102017-DJB-109	0.805 J	2.00 U	µg/L
				GW-013926-102017-DJB-110	0.488 J	2.00 U	µg/L
				GW-013926-102017-DJB-111	0.613 J	2.00 U	µg/L
Metals	Selenium	10/25/2017	0.425 J	GW-013926-102017-SDL-007	0.464 J	5.00 U	µg/L
				GW-013926-102017-SDL-008	0.589 J	5.00 U	µg/L
				GW-013926-102017-DJB-110	0.533 J	5.00 U	µg/L

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit

Table 5

Qualified Sample Data Due to Variability in Field Duplicate Results
Semiannual Groundwater Sampling
Aquatech Environmental, Inc.
Greer, South Carolina
October 2017

Parameter	Analyte	Diff	Sample ID	Qualified Result	Field Duplicate Sample ID	Qualified Result	Units
Metals	Copper	57.7	GW-013926-102017-DJB-111	2.00 UJ	GW-013926-102017-DJB-112	58.3 J	µg/L
	Lead	1.39	GW-013926-102017-DJB-111	1.91 J	GW-013926-102017-DJB-112	0.524 J	µg/L
General Chemistry	Orthophosphate	0.0217	GW-013926-102017-DJB-111	0.0449 J	GW-013926-102017-DJB-112	0.0232 J	mg/L

Notes:

J - Estimated concentration
UJ - Not detected; associated reporting limit is estimated
Diff - Difference (i.e., >1X RL for water)

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

October 27, 2017

Terefe Mazengia
GHD Services, Inc.

3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1710I63

Analytical Environmental Services, Inc. received 4 samples on 10/19/2017 10:10:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/18.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1110360

Date: 10/18/17 Page 1 of 1

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd. Suite 470 Duluth, GA 30096

PHONE: 770-441-0027

EMAIL:

SAMPLED BY: David Brytowski

SIGNATURE: [signature]

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	GRAB	COMPOSITE	MATRIX (see codes)	TCL VOCs	TMBs	1,4 Dioxane	SSR metals	Fe, Manganese	Dis. Gases	Chloride	Nitrate	Sulfate	TOC	Ammonia	orthophosphate	EDB	Alkalinity	REMARKS	Number of Containers
	PRESERVATION (see codes)																					
1	GW-013926-101817-DJB-101	10/18/17	13:00	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	See SSOW #1	13
2	GW-013926-101817-DJB-102	10/18/17	15:10	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13926-25-04	3
3	GW-013926-101817-DJB-103	10/18/17	16:45	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	X		13
4	Trip Blank						X	X														2
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						

RELINQUISHED BY: DATE/TIME:
1. [signature] 10/18/17 18:30
2.
3.

RECEIVED BY: DATE/TIME:
1. [signature] 10/19/17 10:10
2. 2.1°
3.

PROJECT INFORMATION
PROJECT NAME: Aquatech
PROJECT #: 013926
SITE ADDRESS: Greer, SC
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers 42

Turnaround Time (TAT) Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other

STATE PROGRAM (if any):
E-mail? ☐ Fax? ☐
DATA PACKAGE: I ○ II ○ III ○ IV ○

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT: / / VIA:
IN: / / VIA:
client FedEx UPS US mail courier Greyhound
other:

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1710I63

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

LCS-250196 recovery for Bromoform was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

Micro-extractable VOC Analysis by Method 8011:

Matrix spike duplicate analyses were not performed with Batch 250208 due to insufficient sample volume.

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-DJB-101
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 1:00:00 PM
Lab ID:	1710I63-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,1,2,2-Tetrachloroethane	0.69	J	0.34	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,1-Dichloroethene	0.87	J	0.40	2.0	ug/L	250196	1	10/20/2017 21:31	OM
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,2-Dichloroethane	2.0		0.37	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 21:31	OM
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250196	1	10/20/2017 21:31	OM
2-Butanone	BRL		2.5	10	ug/L	250196	1	10/20/2017 21:31	OM
2-Hexanone	BRL		0.67	10	ug/L	250196	1	10/20/2017 21:31	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250196	1	10/20/2017 21:31	OM
Acetone	BRL		3.6	20	ug/L	250196	1	10/20/2017 21:31	OM
Benzene	BRL		0.37	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Bromodichloromethane	BRL		0.25	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Bromoform	BRL		0.19	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Bromomethane	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	250196	1	10/20/2017 21:31	OM
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250196	1	10/20/2017 21:31	OM
Chlorobenzene	BRL		0.42	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Chloroethane	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Chloroform	1.1		0.20	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Chloromethane	BRL		0.21	1.0	ug/L	250196	1	10/20/2017 21:31	OM
cis-1,2-Dichloroethene	2.7		0.28	1.0	ug/L	250196	1	10/20/2017 21:31	OM
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Cyclohexane	BRL		1.0	2.0	ug/L	250196	1	10/20/2017 21:31	OM
Dibromochloromethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Ethylbenzene	BRL		0.26	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Freon-113	BRL		0.32	5.0	ug/L	250196	1	10/20/2017 21:31	OM
Isopropylbenzene	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Methyl acetate	BRL		0.42	2.0	ug/L	250196	1	10/20/2017 21:31	OM
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Methylcyclohexane	BRL		0.39	2.0	ug/L	250196	1	10/20/2017 21:31	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-DJB-101
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 1:00:00 PM
Lab ID:	1710I63-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250196	1	10/20/2017 21:31	OM
Styrene	BRL		0.15	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Tetrachloroethene	9.7		0.46	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Toluene	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 21:31	OM
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250196	1	10/20/2017 21:31	OM
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250196	1	10/20/2017 21:31	OM
Trichloroethene	9.0		0.30	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Trichlorofluoromethane	1.1		0.18	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Vinyl chloride	BRL		0.30	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Xylenes, Total	BRL		0.77	1.0	ug/L	250196	1	10/20/2017 21:31	OM
Surr: 4-Bromofluorobenzene	83.7		0	70-130	%REC	250196	1	10/20/2017 21:31	OM
Surr: Dibromofluoromethane	93.4		0	70-130	%REC	250196	1	10/20/2017 21:31	OM
Surr: Toluene-d8	94.1		0	70-130	%REC	250196	1	10/20/2017 21:31	OM
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R354991	1	10/20/2017 18:18	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.612	J	0.156	5.00	ug/L	250169	1	10/24/2017 19:05	JR
Barium	186		0.185	10.0	ug/L	250169	1	10/24/2017 19:05	JR
Cadmium	BRL		0.148	0.700	ug/L	250169	1	10/24/2017 19:05	JR
Chromium	0.793	J	0.193	5.00	ug/L	250169	1	10/23/2017 20:27	JR
Copper	0.843	J	0.126	2.00	ug/L	250169	1	10/23/2017 20:27	JR
Iron	101		6.47	100	ug/L	250169	1	10/23/2017 20:27	JR
Lead	BRL		0.215	1.00	ug/L	250169	1	10/23/2017 20:27	JR
Manganese	38.5		0.344	5.00	ug/L	250169	1	10/24/2017 19:05	JR
Selenium	BRL		0.264	5.00	ug/L	250169	1	10/24/2017 19:05	JR
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.210		0.00820	0.0200	mg/L	R354850	2	10/19/2017 13:57	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.0101	0.020	mg/L	R355045	1	10/23/2017 13:33	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.00407	0.020	ug/L	250208	1	10/20/2017 20:10	UH
Surr: 4-Bromofluorobenzene	105		0	64.9-131	%REC	250208	1	10/20/2017 20:10	UH
ION SCAN SW9056A									
Chloride	14		0.17	1.0	mg/L	R354909	1	10/20/2017 09:20	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-DJB-101
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 1:00:00 PM
Lab ID:	1710I63-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	1.5		0.055	0.25	mg/L	R354909	1	10/20/2017 09:20	VL
Sulfate	16		0.12	1.0	mg/L	R354909	1	10/20/2017 09:20	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250323	1	10/23/2017 15:06	UH
Ethylene	BRL		3.5	7.0	ug/L	250323	1	10/23/2017 15:06	UH
Methane	BRL		1.2	4.0	ug/L	250323	1	10/23/2017 15:06	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	BRL		1.68	3.00	mg/L	R355213	1	10/25/2017 11:00	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	7.9		0.47	2.0	ug/L	250368	1	10/24/2017 10:14	NP
Surr: 4-Bromofluorobenzene	94.5		0	84.6-119	%REC	250368	1	10/24/2017 10:14	NP
Surr: Dibromofluoromethane	102		0	80-119	%REC	250368	1	10/24/2017 10:14	NP
Surr: Toluene-d8	99.5		0	85-115	%REC	250368	1	10/24/2017 10:14	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-DJB-102
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 3:10:00 PM
Lab ID:	1710I63-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	0.93	J	0.30	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,1,2,2-Tetrachloroethane	13		0.34	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,1,2-Trichloroethane	1.5		0.43	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,1-Dichloroethane	24		0.43	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,1-Dichloroethene	24		0.40	2.0	ug/L	250196	1	10/23/2017 13:14	OM
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,2-Dichloroethane	2.5		0.37	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 13:14	OM
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250196	1	10/23/2017 13:14	OM
2-Butanone	BRL		2.5	10	ug/L	250196	1	10/23/2017 13:14	OM
2-Hexanone	BRL		0.67	10	ug/L	250196	1	10/23/2017 13:14	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250196	1	10/23/2017 13:14	OM
Acetone	BRL		3.6	20	ug/L	250196	1	10/23/2017 13:14	OM
Benzene	BRL		0.37	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Bromodichloromethane	BRL		0.25	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Bromoform	BRL		0.19	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Bromomethane	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	250196	1	10/23/2017 13:14	OM
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250196	1	10/23/2017 13:14	OM
Chlorobenzene	BRL		0.42	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Chloroethane	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Chloroform	15		0.20	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Chloromethane	BRL		0.21	1.0	ug/L	250196	1	10/23/2017 13:14	OM
cis-1,2-Dichloroethene	330		2.8	10	ug/L	250196	10	10/25/2017 14:38	OM
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Cyclohexane	BRL		1.0	2.0	ug/L	250196	1	10/23/2017 13:14	OM
Dibromochloromethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Ethylbenzene	BRL		0.26	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Freon-113	BRL		0.32	5.0	ug/L	250196	1	10/23/2017 13:14	OM
Isopropylbenzene	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Methyl acetate	BRL		0.42	2.0	ug/L	250196	1	10/23/2017 13:14	OM
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Methylcyclohexane	BRL		0.39	2.0	ug/L	250196	1	10/23/2017 13:14	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-DJB-102
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 3:10:00 PM
Lab ID:	1710I63-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250196	1	10/23/2017 13:14	OM
Styrene	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Tetrachloroethene	63		0.46	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Toluene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 13:14	OM
trans-1,2-Dichloroethene	0.68	J	0.30	2.0	ug/L	250196	1	10/23/2017 13:14	OM
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250196	1	10/23/2017 13:14	OM
Trichloroethene	320		3.0	10	ug/L	250196	10	10/25/2017 14:38	OM
Trichlorofluoromethane	1.1		0.18	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Vinyl chloride	1.2		0.30	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Xylenes, Total	BRL		0.77	1.0	ug/L	250196	1	10/23/2017 13:14	OM
Surr: 4-Bromofluorobenzene	84.7		0	70-130	%REC	250196	1	10/23/2017 13:14	OM
Surr: 4-Bromofluorobenzene	85.7		0	70-130	%REC	250196	10	10/25/2017 14:38	OM
Surr: Dibromofluoromethane	95.1		0	70-130	%REC	250196	10	10/25/2017 14:38	OM
Surr: Dibromofluoromethane	97.8		0	70-130	%REC	250196	1	10/23/2017 13:14	OM
Surr: Toluene-d8	93.2		0	70-130	%REC	250196	10	10/25/2017 14:38	OM
Surr: Toluene-d8	95.2		0	70-130	%REC	250196	1	10/23/2017 13:14	OM
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R354991	1	10/20/2017 18:48	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	1.40	J	0.156	5.00	ug/L	250169	1	10/24/2017 19:11	JR
Barium	413		0.185	10.0	ug/L	250169	1	10/24/2017 19:11	JR
Cadmium	0.241	J	0.148	0.700	ug/L	250169	1	10/24/2017 19:11	JR
Chromium	6.20		0.193	5.00	ug/L	250169	1	10/23/2017 20:33	JR
Copper	1.25	J	0.126	2.00	ug/L	250169	1	10/23/2017 20:33	JR
Iron	4160		6.47	100	ug/L	250169	1	10/23/2017 20:33	JR
Lead	2.28		0.215	1.00	ug/L	250169	1	10/23/2017 20:33	JR
Manganese	291		0.344	5.00	ug/L	250169	1	10/24/2017 19:11	JR
Selenium	0.401	J	0.264	5.00	ug/L	250169	1	10/24/2017 19:11	JR
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.154		0.00410	0.0100	mg/L	R354850	1	10/19/2017 13:47	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.0101	0.020	mg/L	R355045	1	10/23/2017 13:42	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.00404	0.020	ug/L	250208	1	10/20/2017 20:39	UH
Surr: 4-Bromofluorobenzene	107		0	64.9-131	%REC	250208	1	10/20/2017 20:39	UH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-DJB-102
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 3:10:00 PM
Lab ID:	1710I63-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	12		0.17	1.0	mg/L	R354909	1	10/20/2017 09:36	VL
Nitrate	1.0		0.055	0.25	mg/L	R354909	1	10/20/2017 09:36	VL
Sulfate	0.50	J	0.12	1.0	mg/L	R354909	1	10/20/2017 09:36	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250323	1	10/23/2017 15:12	UH
Ethylene	3.7	J	3.5	7.0	ug/L	250323	1	10/23/2017 15:12	UH
Methane	74		1.2	4.0	ug/L	250323	1	10/23/2017 15:12	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	41.0		1.68	3.00	mg/L	R355213	1	10/25/2017 11:00	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	330		4.7	20	ug/L	250368	10	10/24/2017 13:39	NP
Surr: 4-Bromofluorobenzene	94.5		0	84.6-119	%REC	250368	10	10/24/2017 13:39	NP
Surr: Dibromofluoromethane	107		0	80-119	%REC	250368	10	10/24/2017 13:39	NP
Surr: Toluene-d8	98.3		0	85-115	%REC	250368	10	10/24/2017 13:39	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-DJB-103
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 4:45:00 PM
Lab ID:	1710I63-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,1,2,2-Tetrachloroethane	6.2		0.34	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,1-Dichloroethane	7.7		0.43	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,1-Dichloroethene	7.7		0.40	2.0	ug/L	250196	1	10/20/2017 21:58	OM
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,2-Dichloroethane	0.56	J	0.37	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 21:58	OM
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250196	1	10/20/2017 21:58	OM
2-Butanone	BRL		2.5	10	ug/L	250196	1	10/20/2017 21:58	OM
2-Hexanone	BRL		0.67	10	ug/L	250196	1	10/20/2017 21:58	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250196	1	10/20/2017 21:58	OM
Acetone	BRL		3.6	20	ug/L	250196	1	10/20/2017 21:58	OM
Benzene	BRL		0.37	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Bromodichloromethane	BRL		0.25	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Bromoform	BRL		0.19	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Bromomethane	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	250196	1	10/20/2017 21:58	OM
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250196	1	10/20/2017 21:58	OM
Chlorobenzene	BRL		0.42	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Chloroethane	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Chloroform	2.2		0.20	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Chloromethane	BRL		0.21	1.0	ug/L	250196	1	10/20/2017 21:58	OM
cis-1,2-Dichloroethene	130		0.28	1.0	ug/L	250196	1	10/20/2017 21:58	OM
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Cyclohexane	BRL		1.0	2.0	ug/L	250196	1	10/20/2017 21:58	OM
Dibromochloromethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Ethylbenzene	BRL		0.26	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Freon-113	3.2	J	0.32	5.0	ug/L	250196	1	10/20/2017 21:58	OM
Isopropylbenzene	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Methyl acetate	BRL		0.42	2.0	ug/L	250196	1	10/20/2017 21:58	OM
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Methylcyclohexane	BRL		0.39	2.0	ug/L	250196	1	10/20/2017 21:58	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-DJB-103
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 4:45:00 PM
Lab ID:	1710I63-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250196	1	10/20/2017 21:58	OM
Styrene	BRL		0.15	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Tetrachloroethene	46		0.46	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Toluene	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 21:58	OM
trans-1,2-Dichloroethene	0.51	J	0.30	2.0	ug/L	250196	1	10/20/2017 21:58	OM
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250196	1	10/20/2017 21:58	OM
Trichloroethene	200		3.0	10	ug/L	250196	10	10/25/2017 15:03	OM
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Vinyl chloride	0.80	J	0.30	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Xylenes, Total	BRL		0.77	1.0	ug/L	250196	1	10/20/2017 21:58	OM
Surr: 4-Bromofluorobenzene	81.2		0	70-130	%REC	250196	1	10/20/2017 21:58	OM
Surr: 4-Bromofluorobenzene	83		0	70-130	%REC	250196	10	10/25/2017 15:03	OM
Surr: Dibromofluoromethane	94.5		0	70-130	%REC	250196	1	10/20/2017 21:58	OM
Surr: Dibromofluoromethane	94.3		0	70-130	%REC	250196	10	10/25/2017 15:03	OM
Surr: Toluene-d8	94.9		0	70-130	%REC	250196	1	10/20/2017 21:58	OM
Surr: Toluene-d8	94.1		0	70-130	%REC	250196	10	10/25/2017 15:03	OM
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.391	J	0.337	1.00	mg/L	R354991	1	10/20/2017 20:19	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.644	J	0.156	5.00	ug/L	250169	1	10/24/2017 19:17	JR
Barium	81.9		0.185	10.0	ug/L	250169	1	10/24/2017 19:17	JR
Cadmium	BRL		0.148	0.700	ug/L	250169	1	10/24/2017 19:17	JR
Chromium	0.362	J	0.193	5.00	ug/L	250169	1	10/23/2017 20:40	JR
Copper	0.574	J	0.126	2.00	ug/L	250169	1	10/23/2017 20:40	JR
Iron	12.1	J	6.47	100	ug/L	250169	1	10/23/2017 20:40	JR
Lead	1.11		0.215	1.00	ug/L	250169	1	10/23/2017 20:40	JR
Manganese	11.3		0.344	5.00	ug/L	250169	1	10/24/2017 19:17	JR
Selenium	BRL		0.264	5.00	ug/L	250169	1	10/24/2017 19:17	JR
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.188		0.00410	0.0100	mg/L	R354850	1	10/19/2017 13:48	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.0101	0.020	mg/L	R355045	1	10/23/2017 13:43	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.00404	0.020	ug/L	250208	1	10/20/2017 21:07	UH
Surr: 4-Bromofluorobenzene	105		0	64.9-131	%REC	250208	1	10/20/2017 21:07	UH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-DJB-103
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 4:45:00 PM
Lab ID:	1710I63-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	14		0.17	1.0	mg/L	R354909	1	10/20/2017 09:51	VL
Nitrate	0.69		0.055	0.25	mg/L	R354909	1	10/20/2017 09:51	VL
Sulfate	0.89	J	0.12	1.0	mg/L	R354909	1	10/20/2017 09:51	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250323	1	10/23/2017 15:17	UH
Ethylene	BRL		3.5	7.0	ug/L	250323	1	10/23/2017 15:17	UH
Methane	BRL		1.2	4.0	ug/L	250323	1	10/23/2017 15:17	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	31.0		1.68	3.00	mg/L	R355213	1	10/25/2017 11:00	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	66		0.47	2.0	ug/L	250368	1	10/24/2017 12:48	NP
Surr: 4-Bromofluorobenzene	94.2		0	84.6-119	%REC	250368	1	10/24/2017 12:48	NP
Surr: Dibromofluoromethane	107		0	80-119	%REC	250368	1	10/24/2017 12:48	NP
Surr: Toluene-d8	100		0	85-115	%REC	250368	1	10/24/2017 12:48	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:10:00 AM
Lab ID:	1710I63-004	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250196	1	10/20/2017 21:05	OM
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 21:05	OM
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250196	1	10/20/2017 21:05	OM
2-Butanone	BRL		2.5	10	ug/L	250196	1	10/20/2017 21:05	OM
2-Hexanone	BRL		0.67	10	ug/L	250196	1	10/20/2017 21:05	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250196	1	10/20/2017 21:05	OM
Acetone	BRL		3.6	20	ug/L	250196	1	10/20/2017 21:05	OM
Benzene	BRL		0.37	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Bromodichloromethane	BRL		0.25	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Bromoform	BRL		0.19	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Bromomethane	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	250196	1	10/20/2017 21:05	OM
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250196	1	10/20/2017 21:05	OM
Chlorobenzene	BRL		0.42	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Chloroethane	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Chloroform	BRL		0.20	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Chloromethane	BRL		0.21	1.0	ug/L	250196	1	10/20/2017 21:05	OM
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	250196	1	10/20/2017 21:05	OM
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Cyclohexane	BRL		1.0	2.0	ug/L	250196	1	10/20/2017 21:05	OM
Dibromochloromethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Ethylbenzene	BRL		0.26	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Freon-113	BRL		0.32	5.0	ug/L	250196	1	10/20/2017 21:05	OM
Isopropylbenzene	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Methyl acetate	BRL		0.42	2.0	ug/L	250196	1	10/20/2017 21:05	OM
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Methylcyclohexane	BRL		0.39	2.0	ug/L	250196	1	10/20/2017 21:05	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:10:00 AM
Lab ID:	1710I63-004	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250196	1	10/20/2017 21:05	OM
Styrene	BRL		0.15	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Tetrachloroethene	BRL		0.46	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Toluene	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 21:05	OM
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250196	1	10/20/2017 21:05	OM
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250196	1	10/20/2017 21:05	OM
Trichloroethene	BRL		0.30	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Vinyl chloride	BRL		0.30	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Xylenes, Total	BRL		0.77	1.0	ug/L	250196	1	10/20/2017 21:05	OM
Surr: 4-Bromofluorobenzene	80.4		0	70-130	%REC	250196	1	10/20/2017 21:05	OM
Surr: Dibromofluoromethane	95		0	70-130	%REC	250196	1	10/20/2017 21:05	OM
Surr: Toluene-d8	94.3		0	70-130	%REC	250196	1	10/20/2017 21:05	OM
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	250368	1	10/24/2017 09:23	NP
Surr: 4-Bromofluorobenzene	94.6		0	84.6-119	%REC	250368	1	10/24/2017 09:23	NP
Surr: Dibromofluoromethane	103		0	80-119	%REC	250368	1	10/24/2017 09:23	NP
Surr: Toluene-d8	98.6		0	85-115	%REC	250368	1	10/24/2017 09:23	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
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- < Less than Result value
- Narr See case narrative

Clear Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: GHD Services, Inc. AES Work Order Number: 1710I63

2. Carrier: FedEx ☒ UPS ☐ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	⊙	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	⊙	○	○		
5.	Custody seals intact on shipping container?	⊙	○	○		
6.	Temperature blanks present?	⊙	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	⊙	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	⊙	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	⊙	○	○		
10.	Sampler name and/or signature on COC?	⊙	○	○		
11.	Were all samples received within holding time?	⊙	○	○		
12.	TAT marked on the COC?	⊙	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 2.1 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MJ 10/19/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	⊙	○	○		
17.	Custody seals present on sample containers?	⊙	○	○		
18.	Custody seals intact on sample containers?	⊙	○	○		
19.	Do sample container labels match the COC?	⊙	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	⊙	○	○		
21.	Were all of the samples listed on the COC received?	⊙	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	⊙	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	⊙	○	○		
24.	Were samples received in appropriate containers?	⊙	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	⊙	○	○		
26.	Were trip blanks submitted?	⊙	○	○	listed on COC ☐ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). BU 10/19/17

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	⊙	○	○		
29.	Containers meet preservation guidelines?	⊙	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	⊙		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). BU 10/19/17

Checklist 6.9.17 Rev 2

Locked

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710I63

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710I63-001A	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/20/2017
1710I63-001A	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00PM	10/24/2017
1710I63-001B	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	GC Analysis of Gaseous Samples		10/23/2017 1:30:30PM	10/23/2017
1710I63-001C	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44AM	10/20/2017
1710I63-001D	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/23/2017
1710I63-001D	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/24/2017
1710I63-001E	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	Phosphorus, ortho			10/19/2017
1710I63-001E	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	ION SCAN			10/20/2017
1710I63-001E	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	Alkalinity by SM2320B			10/25/2017
1710I63-001F	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710I63-001F	GW-013926-101817-DJB-101	10/18/2017 1:00:00PM	Groundwater	Total Organic Carbon (TOC)			10/20/2017
1710I63-002A	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/23/2017
1710I63-002A	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/25/2017
1710I63-002A	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00PM	10/24/2017
1710I63-002B	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	GC Analysis of Gaseous Samples		10/23/2017 1:30:30PM	10/23/2017
1710I63-002C	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44AM	10/20/2017
1710I63-002D	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/23/2017
1710I63-002D	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/24/2017
1710I63-002E	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	Phosphorus, ortho			10/19/2017
1710I63-002E	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	ION SCAN			10/20/2017
1710I63-002E	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	Alkalinity by SM2320B			10/25/2017
1710I63-002F	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710I63-002F	GW-013926-101817-DJB-102	10/18/2017 3:10:00PM	Groundwater	Total Organic Carbon (TOC)			10/20/2017
1710I63-003A	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/20/2017
1710I63-003A	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/25/2017
1710I63-003A	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00PM	10/24/2017
1710I63-003B	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	GC Analysis of Gaseous Samples		10/23/2017 1:30:30PM	10/23/2017
1710I63-003C	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44AM	10/20/2017
1710I63-003D	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/23/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710I63

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710I63-003D	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/24/2017
1710I63-003E	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	Phosphorus, ortho			10/19/2017
1710I63-003E	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	ION SCAN			10/20/2017
1710I63-003E	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	Alkalinity by SM2320B			10/25/2017
1710I63-003F	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710I63-003F	GW-013926-101817-DJB-103	10/18/2017 4:45:00PM	Groundwater	Total Organic Carbon (TOC)			10/20/2017
1710I63-004A	TRIP BLANK	10/19/2017 10:10:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/20/2017
1710I63-004A	TRIP BLANK	10/19/2017 10:10:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00PM	10/24/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250169

Sample ID: **MB-250169** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816184**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.3990	5.00									J
Barium	BRL	10.0									
Cadmium	BRL	0.700									
Chromium	0.3120	5.00									J
Copper	0.1832	2.00									J
Iron	BRL	100									
Lead	BRL	1.00									
Manganese	BRL	5.00									
Selenium	BRL	5.00									

Sample ID: **LCS-250169** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816185**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	89.49	5.00	100.0	0.3990	89.1	80	120				
Barium	89.50	10.0	100.0		89.5	80	120				
Cadmium	84.76	0.700	100.0		84.8	80	120				
Chromium	91.09	5.00	100.0	0.3120	90.8	80	120				
Copper	89.56	2.00	100.0	0.1832	89.4	80	120				
Iron	901.0	100	1000		90.1	80	120				
Lead	93.85	1.00	100.0		93.8	80	120				
Manganese	87.95	5.00	100.0		88.0	80	120				
Selenium	87.46	5.00	100.0		87.5	80	120				

Sample ID: **1710G33-001AMS** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816189**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250169

Sample ID: **1710G33-001AMS** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816189**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	89.52	5.00	100.0	0.8626	88.7	75	125				
Barium	131.9	10.0	100.0	44.81	87.1	75	125				
Cadmium	80.75	0.700	100.0		80.7	75	125				
Chromium	89.96	5.00	100.0	0.4403	89.5	75	125				
Copper	86.81	2.00	100.0	0.9637	85.8	75	125				
Iron	1030	100	1000	172.5	85.7	75	125				
Lead	91.71	1.00	100.0		91.7	75	125				
Manganese	292.9	5.00	100.0	206.2	86.7	75	125				
Selenium	85.38	5.00	100.0		85.4	75	125				

Sample ID: **1710G33-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816190**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	88.75	5.00	100.0	0.8626	87.9	75	125	89.52	0.862	20	
Barium	131.9	10.0	100.0	44.81	87.1	75	125	131.9	0.037	20	
Cadmium	80.58	0.700	100.0		80.6	75	125	80.75	0.206	20	
Chromium	89.42	5.00	100.0	0.4403	89.0	75	125	89.96	0.603	20	
Copper	86.16	2.00	100.0	0.9637	85.2	75	125	86.81	0.748	20	
Iron	1048	100	1000	172.5	87.5	75	125	1030	1.72	20	
Lead	90.74	1.00	100.0		90.7	75	125	91.71	1.06	20	
Manganese	287.4	5.00	100.0	206.2	81.2	75	125	292.9	1.90	20	
Selenium	84.62	5.00	100.0		84.6	75	125	85.38	0.897	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **MB-250196** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810633**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2,4-Trimethylbenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3,5-Trimethylbenzene	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **MB-250196** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810633**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	37.29	0	50.00		74.6	70	130				
Surr: Dibromofluoromethane	53.56	0	50.00		107	70	130				
Surr: Toluene-d8	43.52	0	50.00		87.0	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **LCS-250196** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810630**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.35	1.0	50.00		96.7	70	130				
1,1,2,2-Tetrachloroethane	45.97	1.0	50.00		91.9	70	130				
1,1,2-Trichloroethane	51.73	1.0	50.00		103	70	130				
1,1-Dichloroethane	52.72	1.0	50.00		105	70	130				
1,1-Dichloroethene	56.71	2.0	50.00		113	60	140				
1,2,4-Trichlorobenzene	37.14	1.0	50.00		74.3	70	130				
1,2,4-Trimethylbenzene	40.98	1.0	50.00		82.0	70	130				
1,2-Dibromo-3-chloropropane	37.69	1.0	50.00		75.4	70	130				
1,2-Dichlorobenzene	44.37	1.0	50.00		88.7	70	130				
1,2-Dichloroethane	55.66	1.0	50.00		111	70	130				
1,2-Dichloropropane	47.11	1.0	50.00		94.2	70	130				
1,3,5-Trimethylbenzene	41.03	1.0	50.00		82.1	70	130				
1,3-Dichlorobenzene	45.31	1.0	50.00		90.6	70	130				
1,4-Dichlorobenzene	46.63	1.0	50.00		93.3	70	130				
Benzene	47.87	1.0	50.00		95.7	70	130				
Bromodichloromethane	50.51	1.0	50.00		101	70	130				
Bromoform	79.96	1.0	50.00		160	70	130				S
Carbon tetrachloride	53.43	2.0	50.00		107	70	130				
Chlorobenzene	54.01	1.0	50.00		108	70	130				
Chloroform	50.42	1.0	50.00		101	70	130				
cis-1,2-Dichloroethene	49.37	1.0	50.00		98.7	70	130				
cis-1,3-Dichloropropene	42.31	1.0	50.00		84.6	70	130				
Dibromochloromethane	59.66	1.0	50.00		119	70	130				
Ethylbenzene	56.54	1.0	50.00		113	70	130				
Isopropylbenzene	38.84	1.0	50.00		77.7	70	130				
Methylene chloride	56.50	5.0	50.00		113	70	130				
Styrene	53.39	1.0	50.00		107	70	130				

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **LCS-250196** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810630**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	52.24	1.0	50.00		104	70	130				
Toluene	48.72	1.0	50.00		97.4	70	130				
trans-1,2-Dichloroethene	50.54	2.0	50.00		101	70	130				
trans-1,3-Dichloropropene	42.75	2.0	50.00		85.5	70	130				
Trichloroethene	48.57	1.0	50.00		97.1	70	130				
Vinyl chloride	54.81	1.0	50.00		110	70	130				
Xylenes, Total	145.9	1.0	150.0		97.3	70	130				
Surr: 4-Bromofluorobenzene	51.33	0	50.00		103	70	130				
Surr: Dibromofluoromethane	50.79	0	50.00		102	70	130				
Surr: Toluene-d8	43.91	0	50.00		87.8	70	130				

Sample ID: **1710H14-002AMS** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810668**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	24530	500	25000		98.1	72.2	142				
1,1,2,2-Tetrachloroethane	25350	500	25000		101	69.5	127				
1,1,2-Trichloroethane	28230	500	25000		113	75.4	127				
1,1-Dichloroethane	27040	500	25000		108	64.4	128				
1,1-Dichloroethene	28690	1000	25000		115	64.3	149				
1,2,4-Trichlorobenzene	20580	500	25000		82.3	62.3	123				
1,2,4-Trimethylbenzene	22170	500	25000		88.7	70.3	128				
1,2-Dibromo-3-chloropropane	20730	500	25000		82.9	58.9	131				
1,2-Dichlorobenzene	23380	500	25000		93.5	66.8	125				
1,2-Dichloroethane	29490	500	25000		118	71.9	139				
1,2-Dichloropropane	25000	500	25000		100.0	73.2	126				
1,3,5-Trimethylbenzene	21890	500	25000		87.6	70	129				
1,3-Dichlorobenzene	24420	500	25000		97.7	69.7	123				

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **1710H14-002AMS** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810668**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	25710	500	25000		103	66.8	126				
Benzene	25780	500	25000		103	71.6	132				
Bromodichloromethane	27200	500	25000		109	71.8	133				
Bromoform	41520	500	25000		166	58.2	132				S
Carbon tetrachloride	26950	1000	25000		108	61.8	142				
Chlorobenzene	27870	500	25000		111	73.1	126				
Chloroform	27160	500	25000		109	70.1	133				
cis-1,2-Dichloroethene	25510	500	25000		102	71.4	136				
cis-1,3-Dichloropropene	22690	500	25000		90.7	65.9	128				
Dibromochloromethane	31110	500	25000		124	63.8	134				
Ethylbenzene	29680	500	25000		119	81.2	130				
Isopropylbenzene	21210	500	25000		84.8	66	127				
Methylene chloride	28950	2500	25000	1790	109	68.4	135				
Styrene	27840	500	25000		111	70.1	128				
Tetrachloroethene	26640	500	25000		107	69.1	133				
Toluene	26210	500	25000		105	72.5	135				
trans-1,2-Dichloroethene	25510	1000	25000		102	62.4	132				
trans-1,3-Dichloropropene	23950	1000	25000		95.8	69.7	137				
Trichloroethene	26830	500	25000		107	70.2	132				
Vinyl chloride	26590	500	25000		106	55.9	136				
Xylenes, Total	78380	500	75000		104	76.1	139				
Surr: 4-Bromofluorobenzene	24510	0	25000		98.0	70	130				
Surr: Dibromofluoromethane	26290	0	25000		105	70	130				
Surr: Toluene-d8	22470	0	25000		89.9	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **1710H14-002AMSD** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810669**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	24220	500	25000		96.9	72.2	142	24530	1.29	20	
1,1,2,2-Tetrachloroethane	25910	500	25000		104	69.5	127	25350	2.17	20	
1,1,2-Trichloroethane	27770	500	25000		111	75.4	127	28230	1.63	20	
1,1-Dichloroethane	26480	500	25000		106	64.4	128	27040	2.07	20	
1,1-Dichloroethene	27620	1000	25000		110	64.3	149	28690	3.78	30.8	
1,2,4-Trichlorobenzene	22340	500	25000		89.4	62.3	123	20580	8.23	36.8	
1,2,4-Trimethylbenzene	22980	500	25000		91.9	70.3	128	22170	3.59	20	
1,2-Dibromo-3-chloropropane	21850	500	25000		87.4	58.9	131	20730	5.28	20	
1,2-Dichlorobenzene	25440	500	25000		102	66.8	125	23380	8.44	20	
1,2-Dichloroethane	28780	500	25000		115	71.9	139	29490	2.45	20	
1,2-Dichloropropane	24390	500	25000		97.5	73.2	126	25000	2.47	20	
1,3,5-Trimethylbenzene	23640	500	25000		94.6	70	129	21890	7.69	20	
1,3-Dichlorobenzene	26070	500	25000		104	69.7	123	24420	6.54	20	
1,4-Dichlorobenzene	27530	500	25000		110	66.8	126	25710	6.84	20	
Benzene	24790	500	25000		99.2	71.6	132	25780	3.92	20.7	
Bromodichloromethane	26540	500	25000		106	71.8	133	27200	2.48	20	
Bromoform	43040	500	25000		172	58.2	132	41520	3.60	20	S
Carbon tetrachloride	26380	1000	25000		106	61.8	142	26950	2.12	20	
Chlorobenzene	28660	500	25000		115	73.1	126	27870	2.78	26.6	
Chloroform	25570	500	25000		102	70.1	133	27160	6.03	20	
cis-1,2-Dichloroethene	24970	500	25000		99.9	71.4	136	25510	2.14	20	
cis-1,3-Dichloropropene	22760	500	25000		91.0	65.9	128	22690	0.308	20	
Dibromochloromethane	32850	500	25000		131	63.8	134	31110	5.44	20	
Ethylbenzene	31100	500	25000		124	81.2	130	29680	4.67	20	
Isopropylbenzene	22300	500	25000		89.2	66	127	21210	5.01	20	
Methylene chloride	28650	2500	25000	1790	107	68.4	135	28950	1.04	20	
Styrene	28630	500	25000		115	70.1	128	27840	2.82	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **1710H14-002AMSD** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810669**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	28850	500	25000		115	69.1	133	26640	7.95	20	
Toluene	25250	500	25000		101	72.5	135	26210	3.75	23.2	
trans-1,2-Dichloroethene	25280	1000	25000		101	62.4	132	25510	0.906	20	
trans-1,3-Dichloropropene	23730	1000	25000		94.9	69.7	137	23950	0.923	20	
Trichloroethene	25700	500	25000		103	70.2	132	26830	4.32	27.7	
Vinyl chloride	26100	500	25000		104	55.9	136	26590	1.84	20	
Xylenes, Total	79990	500	75000		107	76.1	139	78380	2.04	20	
Surr: 4-Bromofluorobenzene	24520	0	25000		98.1	70	130	24510	0	0	
Surr: Dibromofluoromethane	25350	0	25000		101	70	130	26290	0	0	
Surr: Toluene-d8	21790	0	25000		87.1	70	130	22470	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250208

Sample ID: **MB-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813430**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.492	0	5.000		110	64.9	131				

Sample ID: **LCS-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813431**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09400	0.020	0.1000		94.0	60	140				
Surr: 4-Bromofluorobenzene	5.581	0	5.000		112	64.9	131				

Sample ID: **LCSD-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813432**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09600	0.020	0.1000		96.0	60	140	0.09400	2.11	20	
Surr: 4-Bromofluorobenzene	5.517	0	5.000		110	64.9	131	5.581	0	0	

Sample ID: **1710I65-001GMS** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813440**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.08454	0.020	0.0995		85.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.167	0	4.973		104	64.9	131				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250323

Sample ID: **MB-250323** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819382**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9.0									
Ethylene	BRL	7.0									
Methane	BRL	4.0									

Sample ID: **LCS-250323** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819383**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	120.2	9.0	200.0		60.1	43.9	115				
Ethylene	81.09	7.0	200.0		40.5	29.6	115				
Methane	135.4	4.0	200.0		67.7	49.2	115				

Sample ID: **LCSD-250323** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819384**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	123.2	9.0	200.0		61.6	43.9	115	120.2	2.46	20	
Ethylene	83.12	7.0	200.0		41.6	29.6	115	81.09	2.47	20	
Methane	138.7	4.0	200.0		69.4	49.2	115	135.4	2.41	20	

Sample ID: **1710I63-001BMS** Client ID: **GW-013926-101817-DJB-101** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819391**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	109.1	9.0	200.0		54.5	36.3	115				
Ethylene	72.56	7.0	200.0		36.3	27	115				
Methane	116.2	4.0	200.0		58.1	40.5	115				

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250323

Sample ID: **1710I63-001BMSD** Client ID: **GW-013926-101817-DJB-101** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819392**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	118.1	9.0	200.0		59.0	36.3	115	109.1	7.95	20	
Ethylene	78.38	7.0	200.0		39.2	27	115	72.56	7.71	20	
Methane	125.0	4.0	200.0		62.5	40.5	115	116.2	7.34	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250368

Sample ID: **MB-250368** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355059**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/23/2017** Seq No: **7815810**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	47.93	0	50.00		95.9	84.6	119				
Surr: Dibromofluoromethane	52.36	0	50.00		105	80	119				
Surr: Toluene-d8	49.81	0	50.00		99.6	85	115				

Sample ID: **LCS-250368** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355059**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/23/2017** Seq No: **7815809**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	9.380	5.0	10.00		93.8	68.1	133				
Surr: 4-Bromofluorobenzene	48.03	0	50.00		96.1	84.6	119				
Surr: Dibromofluoromethane	52.82	0	50.00		106	80	119				
Surr: Toluene-d8	49.98	0	50.00		100.0	85	115				

Sample ID: **1710I63-001AMS** Client ID: **GW-013926-101817-DJB-101** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355162**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/24/2017** Seq No: **7818673**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	17.76	5.0	10.00	7.860	99.0	65.9	135				
Surr: 4-Bromofluorobenzene	47.14	0	50.00		94.3	84.6	119				
Surr: Dibromofluoromethane	52.19	0	50.00		104	80	119				
Surr: Toluene-d8	49.96	0	50.00		99.9	85	115				

Sample ID: **1710I63-001AMSD** Client ID: **GW-013926-101817-DJB-101** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355162**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/24/2017** Seq No: **7818674**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	16.63	5.0	10.00	7.860	87.7	65.9	135	17.76	6.57	31.5	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: 250368

Sample ID: **1710I63-001AMSD** Client ID: **GW-013926-101817-DJB-101** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355162**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/24/2017** Seq No: **7818674**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	46.77	0	50.00		93.5	84.6	119	47.14	0	0	
Surr: Dibromofluoromethane	52.13	0	50.00		104	80	119	52.19	0	0	
Surr: Toluene-d8	49.53	0	50.00		99.1	85	115	49.96	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: R354850

Sample ID: **MB-R354850** Client ID: Units: **mg/L** Prep Date: Run No: **354850**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354850** Analysis Date: **10/19/2017** Seq No: **7811670**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R354850** Client ID: Units: **mg/L** Prep Date: Run No: **354850**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354850** Analysis Date: **10/19/2017** Seq No: **7811671**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1020	0.0100	0.1000		102	90	110				

Sample ID: **1710H82-002CMS** Client ID: Units: **mg/L** Prep Date: Run No: **354850**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354850** Analysis Date: **10/19/2017** Seq No: **7811673**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1980	0.0100	0.1000	0.1030	95.0	90	110				

Sample ID: **1710H82-002CMSD** Client ID: Units: **mg/L** Prep Date: Run No: **354850**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354850** Analysis Date: **10/19/2017** Seq No: **7811683**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.2040	0.0200	0.1000	0.1030	101	90	110	0.1980	2.99	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: R354909

Sample ID: **MB-R354909** Client ID: Units: **mg/L** Prep Date: Run No: **354909**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R354909** Analysis Date: **10/19/2017** Seq No: **7812251**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	0.2031	1.0									J
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R354909** Client ID: Units: **mg/L** Prep Date: Run No: **354909**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R354909** Analysis Date: **10/19/2017** Seq No: **7812250**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	4.926	1.0	5.000		98.5	90	110				
Nitrate	4.747	0.25	5.000		94.9	90	110				
Sulfate	22.73	1.0	25.00		90.9	90	110				

Sample ID: **1710H30-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **354909**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R354909** Analysis Date: **10/19/2017** Seq No: **7812258**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	99.26	10	50.00	48.45	102	90	110				
Nitrate	66.74	2.5	50.00	16.99	99.5	90	110				
Sulfate	263.3	10	250.0	30.05	93.3	90	110				

Sample ID: **1710H31-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **354909**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R354909** Analysis Date: **10/19/2017** Seq No: **7812260**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	90.92	10	50.00	39.69	102	90	110				
Nitrate	57.01	2.5	50.00	7.706	98.6	90	110				
Sulfate	264.7	10	250.0	27.73	94.8	90	110				

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: R354909

Sample ID: **1710H30-002BMSD** Client ID:
SampleType: **MSD** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date:
BatchID: **R354909** Analysis Date: **10/19/2017**
Run No: **354909**
Seq No: **7812259**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	96.37	10	50.00	48.45	95.8	90	110	99.26	2.95	20	
Nitrate	67.83	2.5	50.00	16.99	102	90	110	66.74	1.63	20	
Sulfate	264.5	10	250.0	30.05	93.8	90	110	263.3	0.459	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: R354991

Sample ID: **MB-R354991** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815238**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R354991** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815236**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.46	1.00	25.00		102	90	110				

Sample ID: **1710I63-002FMS** Client ID: **GW-013926-101817-DJB-102** Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815242**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.52	1.00	25.00		102	80	120				

Sample ID: **1710I63-002FMSD** Client ID: **GW-013926-101817-DJB-102** Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815243**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.52	1.00	25.00		102	80	120	25.52	0	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: R355045

Sample ID: **MB-R355045** Client ID: Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815491**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R355045** Client ID: Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815493**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9660	0.020	1.000		96.6	90	110				

Sample ID: **1710I63-001FMS** Client ID: **GW-013926-101817-DJB-101** Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815511**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9880	0.020	1.000		98.8	90	110				

Sample ID: **1710K78-002AMS** Client ID: Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815496**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.030	0.020	1.000	0.03430	99.6	90	110				

Sample ID: **1710K78-002AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815498**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.040	0.020	1.000	0.03430	101	90	110	1.030	0.966	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I63

ANALYTICAL QC SUMMARY REPORT

BatchID: **R355213**

Sample ID: **MB-R355213** Client ID: Units: **mg/L** Prep Date: Run No: **355213**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R355213** Analysis Date: **10/25/2017** Seq No: **7819959**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R355213** Client ID: Units: **mg/L** Prep Date: Run No: **355213**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R355213** Analysis Date: **10/25/2017** Seq No: **7819960**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	121.0	3.00	125.0		96.8	75	125				

Sample ID: **1710B46-001ADUP** Client ID: Units: **mg/L** Prep Date: Run No: **355213**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R355213** Analysis Date: **10/25/2017** Seq No: **7820731**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	25.00	3.00						0	0	30	

Sample ID: **1710I63-001EDUP** Client ID: **GW-013926-101817-DJB-101** Units: **mg/L** Prep Date: Run No: **355213**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R355213** Analysis Date: **10/25/2017** Seq No: **7819967**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00						0	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 27, 2017

Terefe Mazengia
GHD Services, Inc.

3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1710I65

Analytical Environmental Services, Inc. received 5 samples on 10/19/2017 10:10:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/18.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3080 Presidential Drive Atlanta, GA 30340-3704
Phone: (770) 457-8177 / Toll-Free: (800) 972-4889 / Fax: (770) 457-8188

AES

CHAIN OF CUSTODY

Work Order: 1110165

Date: 10/18/17 Page ____ of ____

COMPANY: GHD

ADDRESS: 3015 Breckinridge Blvd. Duluth, GA 30096 Suite 470

PHONE: 770-441-0027

EMAIL: Stephanie.lindo@ghd.com

SAMPLED BY: Stephanie Lindo

SIGNATURE: [signature]

Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.

ANALYSIS REQUESTED / PRESERVATION (see codes)

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	GRAB	COMPOSITE	MATRIX (see codes)	TCL VOCs	1,4-dioxane	TAL Metals	Sulfate	Nitrate	Dissolved Iron & Manganese	Ammonia	Orthophosphate	EDB					REMARKS	Number of Containers
1	GW-013926-101817-SDL-001	10/18/17	10:28	✓		GW	✓	✓	✓	✓	✓	✓	✓	✓	✓						11
2	GW-013926-101817-SDL-002	10/18/17	12:15	✓		GW	✓	✓	✓	✓	✓	✓	✓	✓	✓						11
3	GW-013926-101817-SDL-003	10/18/17	14:45	✓		GW	✓	✓	✓	✓	✓	✓	✓	✓	✓						11
4	GW-013926-101817-SDL-004	10/18/17	16:55	✓		GW	✓	✓	✓	✓	✓	✓	✓	✓	✓					see SSOW #13926-25-006	11
5	Trip Blank						✓	✓													3
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1. [signature]	10/18/17 18:30	1. [signature]	10/19/17 10:10
2.		2. 1.9°	
3.		3.	

PROJECT INFORMATION

PROJECT NAME: Aquatech

PROJECT #: 013926

SITE ADDRESS: Greer, SC

SEND REPORT TO:

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #: ____ PO#: ____

RECEIPT

Total # of Containers

Turnaround Time (TAT) Request

- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same-Day Rush (auth req.)
- [ ] Other ____

STATE PROGRAM (If any): ____

E-mail? ☐ Fax? ☐

DATA PACKAGE: I ○ II ○ III ○ IV ○

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT: / / VIA:

IN: / / VIA:

client FedEx UPS US mail courier Greyhound

other: ____

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + Ice I = Ice only N = Nitric acid S+I = Sulfuric acid + Ice S/M+I = Sodium Bisulfate/Methanol + Ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1710I65

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

LCS-250196 recovery for Bromoform was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

Micro-extractable VOC Analysis by Method 8011:

Matrix spike duplicate analyses were not performed with Batch 250208 due to insufficient sample volume.

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-SDL-001
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 10:28:00 AM
Lab ID:	1710I65-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250196	1	10/23/2017 13:40	OM
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 13:40	OM
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250196	1	10/23/2017 13:40	OM
2-Butanone	BRL		2.5	10	ug/L	250196	1	10/23/2017 13:40	OM
2-Hexanone	BRL		0.67	10	ug/L	250196	1	10/23/2017 13:40	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250196	1	10/23/2017 13:40	OM
Acetone	BRL		3.6	20	ug/L	250196	1	10/23/2017 13:40	OM
Benzene	BRL		0.37	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Bromodichloromethane	BRL		0.25	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Bromoform	BRL		0.19	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Bromomethane	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	250196	1	10/23/2017 13:40	OM
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250196	1	10/23/2017 13:40	OM
Chlorobenzene	BRL		0.42	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Chloroethane	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Chloroform	0.56	J	0.20	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Chloromethane	BRL		0.21	1.0	ug/L	250196	1	10/23/2017 13:40	OM
cis-1,2-Dichloroethene	2.3		0.28	1.0	ug/L	250196	1	10/23/2017 13:40	OM
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Cyclohexane	BRL		1.0	2.0	ug/L	250196	1	10/23/2017 13:40	OM
Dibromochloromethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Ethylbenzene	BRL		0.26	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Freon-113	BRL		0.32	5.0	ug/L	250196	1	10/23/2017 13:40	OM
Isopropylbenzene	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Methyl acetate	BRL		0.42	2.0	ug/L	250196	1	10/23/2017 13:40	OM
Methyl tert-butyl ether	1.7		0.45	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Methylcyclohexane	BRL		0.39	2.0	ug/L	250196	1	10/23/2017 13:40	OM
Methylene chloride	BRL		1.2	5.0	ug/L	250196	1	10/23/2017 13:40	OM
Styrene	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 13:40	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-SDL-001
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 10:28:00 AM
Lab ID:	1710I65-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	1100		4.6	10	ug/L	250196	10	10/23/2017 14:06	OM
Toluene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 13:40	OM
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250196	1	10/23/2017 13:40	OM
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250196	1	10/23/2017 13:40	OM
Trichloroethene	6.0		0.30	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Vinyl chloride	BRL		0.30	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Xylenes, Total	BRL		0.77	1.0	ug/L	250196	1	10/23/2017 13:40	OM
Surr: 4-Bromofluorobenzene	82.6		0	70-130	%REC	250196	1	10/23/2017 13:40	OM
Surr: 4-Bromofluorobenzene	82.1		0	70-130	%REC	250196	10	10/23/2017 14:06	OM
Surr: Dibromofluoromethane	96.1		0	70-130	%REC	250196	1	10/23/2017 13:40	OM
Surr: Dibromofluoromethane	96.9		0	70-130	%REC	250196	10	10/23/2017 14:06	OM
Surr: Toluene-d8	96.5		0	70-130	%REC	250196	1	10/23/2017 13:40	OM
Surr: Toluene-d8	96.9		0	70-130	%REC	250196	10	10/23/2017 14:06	OM
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	267		4.31	50.0	ug/L	250169	1	10/24/2017 19:43	JR
Antimony	BRL		0.197	5.00	ug/L	250169	1	10/23/2017 20:46	JR
Arsenic	0.815	J	0.156	5.00	ug/L	250169	1	10/24/2017 19:43	JR
Barium	70.5		0.185	10.0	ug/L	250169	1	10/24/2017 19:43	JR
Beryllium	0.191	J	0.147	1.00	ug/L	250169	1	10/24/2017 19:43	JR
Cadmium	0.162	J	0.148	0.700	ug/L	250169	1	10/26/2017 13:54	JR
Calcium	2560		14.4	100	ug/L	250169	1	10/24/2017 19:43	JR
Chromium	4.81	J	0.193	5.00	ug/L	250169	1	10/23/2017 20:46	JR
Cobalt	0.590	J	0.188	5.00	ug/L	250169	1	10/23/2017 20:46	JR
Copper	1.13	J	0.126	2.00	ug/L	250169	1	10/23/2017 20:46	JR
Iron	273		6.47	100	ug/L	250169	1	10/23/2017 20:46	JR
Lead	0.448	J	0.215	1.00	ug/L	250169	1	10/23/2017 20:46	JR
Magnesium	792		5.27	100	ug/L	250169	1	10/23/2017 20:46	JR
Manganese	10.9		0.344	5.00	ug/L	250169	1	10/26/2017 13:54	JR
Nickel	1.24	J	0.210	5.00	ug/L	250169	1	10/23/2017 20:46	JR
Potassium	1270		13.2	100	ug/L	250169	1	10/24/2017 19:43	JR
Selenium	0.476	J	0.264	5.00	ug/L	250169	1	10/24/2017 19:43	JR
Silver	0.0212	J	0.0185	1.00	ug/L	250169	1	10/23/2017 20:46	JR
Sodium	28800		6.39	500	ug/L	250169	1	10/24/2017 19:43	JR
Thallium	BRL		0.192	1.00	ug/L	250169	1	10/23/2017 20:46	JR
Vanadium	6.29		0.170	5.00	ug/L	250169	1	10/23/2017 20:46	JR
Zinc	3.30	J	0.580	10.0	ug/L	250169	1	10/23/2017 20:46	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
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- E Estimated value above quantitation range
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- > Greater than Result value
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- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-SDL-001
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 10:28:00 AM
Lab ID:	1710I65-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	1.60		0.0820	0.200	mg/L	R354850	20	10/19/2017 14:07	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.0101	0.020	mg/L	R355045	1	10/23/2017 13:45	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.00415	0.020	ug/L	250208	1	10/20/2017 17:20	UH
Surr: 4-Bromofluorobenzene	111		0	64.9-131	%REC	250208	1	10/20/2017 17:20	UH
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.000060	0.00020	mg/L	250442	1	10/26/2017 12:11	AS
ION SCAN SW9056A									
Nitrate	5.5		0.055	0.25	mg/L	R354909	1	10/19/2017 14:38	VL
Sulfate	8.7		0.12	1.0	mg/L	R354909	1	10/19/2017 14:38	VL
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	250219	1	10/25/2017 01:43	JR
Manganese	2.51	J	0.344	5.00	ug/L	250219	1	10/25/2017 01:43	JR
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	250368	1	10/24/2017 14:32	NP
Surr: 4-Bromofluorobenzene	91		0	84.6-119	%REC	250368	1	10/24/2017 14:32	NP
Surr: Dibromofluoromethane	106		0	80-119	%REC	250368	1	10/24/2017 14:32	NP
Surr: Toluene-d8	99.2		0	85-115	%REC	250368	1	10/24/2017 14:32	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-SDL-002
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 12:15:00 PM
Lab ID:	1710I65-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250196	1	10/23/2017 14:32	OM
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 14:32	OM
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250196	1	10/23/2017 14:32	OM
2-Butanone	BRL		2.5	10	ug/L	250196	1	10/23/2017 14:32	OM
2-Hexanone	BRL		0.67	10	ug/L	250196	1	10/23/2017 14:32	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250196	1	10/23/2017 14:32	OM
Acetone	BRL		3.6	20	ug/L	250196	1	10/23/2017 14:32	OM
Benzene	BRL		0.37	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Bromodichloromethane	BRL		0.25	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Bromoform	BRL		0.19	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Bromomethane	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	250196	1	10/23/2017 14:32	OM
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250196	1	10/23/2017 14:32	OM
Chlorobenzene	BRL		0.42	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Chloroethane	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Chloroform	0.48	J	0.20	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Chloromethane	BRL		0.21	1.0	ug/L	250196	1	10/23/2017 14:32	OM
cis-1,2-Dichloroethene	1.6		0.28	1.0	ug/L	250196	1	10/23/2017 14:32	OM
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Cyclohexane	BRL		1.0	2.0	ug/L	250196	1	10/23/2017 14:32	OM
Dibromochloromethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Ethylbenzene	BRL		0.26	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Freon-113	BRL		0.32	5.0	ug/L	250196	1	10/23/2017 14:32	OM
Isopropylbenzene	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Methyl acetate	BRL		0.42	2.0	ug/L	250196	1	10/23/2017 14:32	OM
Methyl tert-butyl ether	1.9		0.45	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Methylcyclohexane	BRL		0.39	2.0	ug/L	250196	1	10/23/2017 14:32	OM
Methylene chloride	BRL		1.2	5.0	ug/L	250196	1	10/23/2017 14:32	OM
Styrene	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 14:32	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-SDL-002
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 12:15:00 PM
Lab ID:	1710I65-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	870		4.6	10	ug/L	250196	10	10/23/2017 14:58	OM
Toluene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 14:32	OM
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250196	1	10/23/2017 14:32	OM
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250196	1	10/23/2017 14:32	OM
Trichloroethene	4.3		0.30	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Vinyl chloride	BRL		0.30	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Xylenes, Total	BRL		0.77	1.0	ug/L	250196	1	10/23/2017 14:32	OM
Surr: 4-Bromofluorobenzene	84		0	70-130	%REC	250196	1	10/23/2017 14:32	OM
Surr: 4-Bromofluorobenzene	83.6		0	70-130	%REC	250196	10	10/23/2017 14:58	OM
Surr: Dibromofluoromethane	95.8		0	70-130	%REC	250196	10	10/23/2017 14:58	OM
Surr: Dibromofluoromethane	96.4		0	70-130	%REC	250196	1	10/23/2017 14:32	OM
Surr: Toluene-d8	95		0	70-130	%REC	250196	1	10/23/2017 14:32	OM
Surr: Toluene-d8	94.7		0	70-130	%REC	250196	10	10/23/2017 14:58	OM
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	429		4.31	50.0	ug/L	250169	1	10/24/2017 19:49	JR
Antimony	BRL		0.197	5.00	ug/L	250169	1	10/23/2017 20:52	JR
Arsenic	3.72	J	0.156	5.00	ug/L	250169	1	10/24/2017 19:49	JR
Barium	67.2		0.185	10.0	ug/L	250169	1	10/24/2017 19:49	JR
Beryllium	BRL		0.147	1.00	ug/L	250169	1	10/24/2017 19:49	JR
Cadmium	BRL		0.148	0.700	ug/L	250169	1	10/26/2017 14:01	JR
Calcium	1420		14.4	100	ug/L	250169	1	10/24/2017 19:49	JR
Chromium	3.17	J	0.193	5.00	ug/L	250169	1	10/23/2017 20:52	JR
Cobalt	0.659	J	0.188	5.00	ug/L	250169	1	10/23/2017 20:52	JR
Copper	0.826	J	0.126	2.00	ug/L	250169	1	10/23/2017 20:52	JR
Iron	194		6.47	100	ug/L	250169	1	10/23/2017 20:52	JR
Lead	0.287	J	0.215	1.00	ug/L	250169	1	10/23/2017 20:52	JR
Magnesium	651		5.27	100	ug/L	250169	1	10/23/2017 20:52	JR
Manganese	69.5		0.344	5.00	ug/L	250169	1	10/26/2017 14:01	JR
Nickel	1.59	J	0.210	5.00	ug/L	250169	1	10/23/2017 20:52	JR
Potassium	898		13.2	100	ug/L	250169	1	10/24/2017 19:49	JR
Selenium	0.360	J	0.264	5.00	ug/L	250169	1	10/24/2017 19:49	JR
Silver	BRL		0.0185	1.00	ug/L	250169	1	10/23/2017 20:52	JR
Sodium	36700		6.39	500	ug/L	250169	1	10/24/2017 19:49	JR
Thallium	BRL		0.192	1.00	ug/L	250169	1	10/23/2017 20:52	JR
Vanadium	44.6		0.170	5.00	ug/L	250169	1	10/23/2017 20:52	JR
Zinc	3.22	J	0.580	10.0	ug/L	250169	1	10/23/2017 20:52	JR

Qualifiers:

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Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101817-SDL-002
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 12:15:00 PM
Lab ID:	1710I65-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	5.16		0.410	1.00	mg/L	R354850	100	10/19/2017 14:08	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.0101	0.020	mg/L	R355045	1	10/23/2017 13:47	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.00404	0.020	ug/L	250208	1	10/20/2017 18:17	UH
Surr: 4-Bromofluorobenzene	119		0	64.9-131	%REC	250208	1	10/20/2017 18:17	UH
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.000060	0.00020	mg/L	250442	1	10/26/2017 12:15	AS
ION SCAN SW9056A									
Nitrate	5.2		0.055	0.25	mg/L	R354909	1	10/19/2017 14:53	VL
Sulfate	8.9		0.12	1.0	mg/L	R354909	1	10/19/2017 14:53	VL
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	250219	1	10/25/2017 02:34	JR
Manganese	9.90		0.344	5.00	ug/L	250219	1	10/26/2017 15:04	JR
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	250368	1	10/24/2017 14:58	NP
Surr: 4-Bromofluorobenzene	93.9		0	84.6-119	%REC	250368	1	10/24/2017 14:58	NP
Surr: Dibromofluoromethane	106		0	80-119	%REC	250368	1	10/24/2017 14:58	NP
Surr: Toluene-d8	99.5		0	85-115	%REC	250368	1	10/24/2017 14:58	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
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- E Estimated value above quantitation range
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-1018-SDL-003
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 2:45:00 PM
Lab ID:	1710I65-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250196	1	10/23/2017 15:25	OM
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 15:25	OM
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250196	1	10/23/2017 15:25	OM
2-Butanone	BRL		2.5	10	ug/L	250196	1	10/23/2017 15:25	OM
2-Hexanone	BRL		0.67	10	ug/L	250196	1	10/23/2017 15:25	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250196	1	10/23/2017 15:25	OM
Acetone	4.2	J	3.6	20	ug/L	250196	1	10/23/2017 15:25	OM
Benzene	BRL		0.37	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Bromodichloromethane	BRL		0.25	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Bromoform	BRL		0.19	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Bromomethane	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	250196	1	10/23/2017 15:25	OM
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250196	1	10/23/2017 15:25	OM
Chlorobenzene	BRL		0.42	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Chloroethane	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Chloroform	0.51	J	0.20	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Chloromethane	BRL		0.21	1.0	ug/L	250196	1	10/23/2017 15:25	OM
cis-1,2-Dichloroethene	1.9		0.28	1.0	ug/L	250196	1	10/23/2017 15:25	OM
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Cyclohexane	BRL		1.0	2.0	ug/L	250196	1	10/23/2017 15:25	OM
Dibromochloromethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Ethylbenzene	BRL		0.26	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Freon-113	BRL		0.32	5.0	ug/L	250196	1	10/23/2017 15:25	OM
Isopropylbenzene	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Methyl acetate	BRL		0.42	2.0	ug/L	250196	1	10/23/2017 15:25	OM
Methyl tert-butyl ether	2.2		0.45	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Methylcyclohexane	BRL		0.39	2.0	ug/L	250196	1	10/23/2017 15:25	OM
Methylene chloride	BRL		1.2	5.0	ug/L	250196	1	10/23/2017 15:25	OM
Styrene	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 15:25	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-1018-SDL-003
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 2:45:00 PM
Lab ID:	1710I65-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	960		4.6	10	ug/L	250196	10	10/23/2017 15:51	OM
Toluene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 15:25	OM
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250196	1	10/23/2017 15:25	OM
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250196	1	10/23/2017 15:25	OM
Trichloroethene	5.0		0.30	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Vinyl chloride	BRL		0.30	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Xylenes, Total	BRL		0.77	1.0	ug/L	250196	1	10/23/2017 15:25	OM
Surr: 4-Bromofluorobenzene	82.7		0	70-130	%REC	250196	1	10/23/2017 15:25	OM
Surr: 4-Bromofluorobenzene	83.6		0	70-130	%REC	250196	10	10/23/2017 15:51	OM
Surr: Dibromofluoromethane	94.1		0	70-130	%REC	250196	10	10/23/2017 15:51	OM
Surr: Dibromofluoromethane	97.6		0	70-130	%REC	250196	1	10/23/2017 15:25	OM
Surr: Toluene-d8	95.6		0	70-130	%REC	250196	10	10/23/2017 15:51	OM
Surr: Toluene-d8	96.4		0	70-130	%REC	250196	1	10/23/2017 15:25	OM
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	1570		4.31	50.0	ug/L	250169	1	10/24/2017 19:55	JR
Antimony	BRL		0.197	5.00	ug/L	250169	1	10/23/2017 21:11	JR
Arsenic	7.15		0.156	5.00	ug/L	250169	1	10/24/2017 19:55	JR
Barium	277		0.185	10.0	ug/L	250169	1	10/24/2017 19:55	JR
Beryllium	0.426	J	0.147	1.00	ug/L	250169	1	10/24/2017 19:55	JR
Cadmium	BRL		0.148	0.700	ug/L	250169	1	10/26/2017 14:45	JR
Calcium	1280		14.4	100	ug/L	250169	1	10/24/2017 19:55	JR
Chromium	5.15		0.193	5.00	ug/L	250169	1	10/23/2017 21:11	JR
Cobalt	1.31	J	0.188	5.00	ug/L	250169	1	10/23/2017 21:11	JR
Copper	0.871	J	0.126	2.00	ug/L	250169	1	10/23/2017 21:11	JR
Iron	714		6.47	100	ug/L	250169	1	10/23/2017 21:11	JR
Lead	0.787	J	0.215	1.00	ug/L	250169	1	10/23/2017 21:11	JR
Magnesium	518		5.27	100	ug/L	250169	1	10/23/2017 21:11	JR
Manganese	63.3		0.344	5.00	ug/L	250169	1	10/26/2017 14:45	JR
Nickel	1.66	J	0.210	5.00	ug/L	250169	1	10/23/2017 21:11	JR
Potassium	1200		13.2	100	ug/L	250169	1	10/24/2017 19:55	JR
Selenium	0.562	J	0.264	5.00	ug/L	250169	1	10/24/2017 19:55	JR
Silver	BRL		0.0185	1.00	ug/L	250169	1	10/23/2017 21:11	JR
Sodium	48700		6.39	500	ug/L	250169	1	10/24/2017 19:55	JR
Thallium	BRL		0.192	1.00	ug/L	250169	1	10/23/2017 21:11	JR
Vanadium	50.1		0.170	5.00	ug/L	250169	1	10/23/2017 21:11	JR
Zinc	5.13	J	0.580	10.0	ug/L	250169	1	10/23/2017 21:11	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-1018-SDL-003
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 2:45:00 PM
Lab ID:	1710I65-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	8.99		0.410	1.00	mg/L	R354850	100	10/19/2017 14:09	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.0101	0.020	mg/L	R355045	1	10/23/2017 13:49	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.00414	0.020	ug/L	250208	1	10/20/2017 18:45	UH
Surr: 4-Bromofluorobenzene	108		0	64.9-131	%REC	250208	1	10/20/2017 18:45	UH
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.000060	0.00020	mg/L	250442	1	10/26/2017 12:18	AS
ION SCAN SW9056A									
Nitrate	3.3		0.055	0.25	mg/L	R354909	1	10/19/2017 15:08	VL
Sulfate	6.2		0.12	1.0	mg/L	R354909	1	10/19/2017 15:08	VL
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	250219	1	10/25/2017 02:40	JR
Manganese	2.86	J	0.344	5.00	ug/L	250219	1	10/26/2017 15:10	JR
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	250368	1	10/24/2017 15:23	NP
Surr: 4-Bromofluorobenzene	92.9		0	84.6-119	%REC	250368	1	10/24/2017 15:23	NP
Surr: Dibromofluoromethane	105		0	80-119	%REC	250368	1	10/24/2017 15:23	NP
Surr: Toluene-d8	97.8		0	85-115	%REC	250368	1	10/24/2017 15:23	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-1018-SDL-004
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 4:55:00 PM
Lab ID:	1710I65-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250196	1	10/23/2017 12:48	OM
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 12:48	OM
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250196	1	10/23/2017 12:48	OM
2-Butanone	BRL		2.5	10	ug/L	250196	1	10/23/2017 12:48	OM
2-Hexanone	BRL		0.67	10	ug/L	250196	1	10/23/2017 12:48	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250196	1	10/23/2017 12:48	OM
Acetone	BRL		3.6	20	ug/L	250196	1	10/23/2017 12:48	OM
Benzene	BRL		0.37	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Bromodichloromethane	BRL		0.25	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Bromoform	BRL		0.19	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Bromomethane	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	250196	1	10/23/2017 12:48	OM
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250196	1	10/23/2017 12:48	OM
Chlorobenzene	BRL		0.42	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Chloroethane	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Chloroform	BRL		0.20	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Chloromethane	BRL		0.21	1.0	ug/L	250196	1	10/23/2017 12:48	OM
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	250196	1	10/23/2017 12:48	OM
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Cyclohexane	BRL		1.0	2.0	ug/L	250196	1	10/23/2017 12:48	OM
Dibromochloromethane	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Ethylbenzene	BRL		0.26	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Freon-113	BRL		0.32	5.0	ug/L	250196	1	10/23/2017 12:48	OM
Isopropylbenzene	BRL		0.43	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Methyl acetate	BRL		0.42	2.0	ug/L	250196	1	10/23/2017 12:48	OM
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Methylcyclohexane	BRL		0.39	2.0	ug/L	250196	1	10/23/2017 12:48	OM
Methylene chloride	BRL		1.2	5.0	ug/L	250196	1	10/23/2017 12:48	OM
Styrene	BRL		0.15	1.0	ug/L	250196	1	10/23/2017 12:48	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
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- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-1018-SDL-004
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 4:55:00 PM
Lab ID:	1710I65-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	12		0.46	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Toluene	BRL		0.39	1.0	ug/L	250196	1	10/23/2017 12:48	OM
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250196	1	10/23/2017 12:48	OM
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250196	1	10/23/2017 12:48	OM
Trichloroethene	BRL		0.30	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Vinyl chloride	BRL		0.30	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Xylenes, Total	BRL		0.77	1.0	ug/L	250196	1	10/23/2017 12:48	OM
Surr: 4-Bromofluorobenzene	81.6		0	70-130	%REC	250196	1	10/23/2017 12:48	OM
Surr: Dibromofluoromethane	95.2		0	70-130	%REC	250196	1	10/23/2017 12:48	OM
Surr: Toluene-d8	97.3		0	70-130	%REC	250196	1	10/23/2017 12:48	OM
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	363		4.31	50.0	ug/L	250169	1	10/24/2017 20:02	JR
Antimony	BRL		0.197	5.00	ug/L	250169	1	10/23/2017 21:17	JR
Arsenic	0.359	J	0.156	5.00	ug/L	250169	1	10/24/2017 20:02	JR
Barium	197		0.185	10.0	ug/L	250169	1	10/24/2017 20:02	JR
Beryllium	0.346	J	0.147	1.00	ug/L	250169	1	10/24/2017 20:02	JR
Cadmium	0.529	J	0.148	0.700	ug/L	250169	1	10/26/2017 14:51	JR
Calcium	1190		14.4	100	ug/L	250169	1	10/24/2017 20:02	JR
Chromium	0.748	J	0.193	5.00	ug/L	250169	1	10/23/2017 21:17	JR
Cobalt	8.38		0.188	5.00	ug/L	250169	1	10/23/2017 21:17	JR
Copper	0.793	J	0.126	2.00	ug/L	250169	1	10/23/2017 21:17	JR
Iron	190		6.47	100	ug/L	250169	1	10/23/2017 21:17	JR
Lead	2.24		0.215	1.00	ug/L	250169	1	10/23/2017 21:17	JR
Magnesium	2220		5.27	100	ug/L	250169	1	10/23/2017 21:17	JR
Manganese	493		0.344	5.00	ug/L	250169	1	10/26/2017 14:51	JR
Nickel	4.36	J	0.210	5.00	ug/L	250169	1	10/23/2017 21:17	JR
Potassium	4500		13.2	100	ug/L	250169	1	10/24/2017 20:02	JR
Selenium	0.825	J	0.264	5.00	ug/L	250169	1	10/24/2017 20:02	JR
Silver	BRL		0.0185	1.00	ug/L	250169	1	10/23/2017 21:17	JR
Sodium	7060		6.39	500	ug/L	250169	1	10/24/2017 20:02	JR
Thallium	0.477	J	0.192	1.00	ug/L	250169	1	10/23/2017 21:17	JR
Vanadium	1.84	J	0.170	5.00	ug/L	250169	1	10/23/2017 21:17	JR
Zinc	11.8		0.580	10.0	ug/L	250169	1	10/23/2017 21:17	JR
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0120		0.00410	0.0100	mg/L	R354850	1	10/19/2017 14:10	AM

Qualifiers:

- * Value exceeds maximum contaminant level
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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-1018-SDL-004
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/18/2017 4:55:00 PM
Lab ID:	1710I65-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.0101	0.020	mg/L	R355045	1	10/23/2017 13:51	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.00408	0.020	ug/L	250208	1	10/20/2017 19:13	UH
Surr: 4-Bromofluorobenzene	104		0	64.9-131	%REC	250208	1	10/20/2017 19:13	UH
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.000060	0.00020	mg/L	250442	1	10/26/2017 12:22	AS
ION SCAN SW9056A									
Nitrate	0.81		0.055	0.25	mg/L	R354909	1	10/19/2017 15:23	VL
Sulfate	1.8		0.12	1.0	mg/L	R354909	1	10/19/2017 15:23	VL
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	250219	1	10/25/2017 02:47	JR
Manganese	403		3.44	50.0	ug/L	250219	10	10/26/2017 15:17	JR
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	250368	1	10/24/2017 15:49	NP
Surr: 4-Bromofluorobenzene	93.2		0	84.6-119	%REC	250368	1	10/24/2017 15:49	NP
Surr: Dibromofluoromethane	104		0	80-119	%REC	250368	1	10/24/2017 15:49	NP
Surr: Toluene-d8	97.7		0	85-115	%REC	250368	1	10/24/2017 15:49	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:10:00 AM
Lab ID:	1710I65-005	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250196	1	10/20/2017 15:21	OM
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 15:21	OM
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250196	1	10/20/2017 15:21	OM
2-Butanone	BRL		2.5	10	ug/L	250196	1	10/20/2017 15:21	OM
2-Hexanone	BRL		0.67	10	ug/L	250196	1	10/20/2017 15:21	OM
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250196	1	10/20/2017 15:21	OM
Acetone	BRL		3.6	20	ug/L	250196	1	10/20/2017 15:21	OM
Benzene	BRL		0.37	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Bromodichloromethane	BRL		0.25	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Bromoform	BRL		0.19	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Bromomethane	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Carbon disulfide	BRL		0.74	5.0	ug/L	250196	1	10/20/2017 15:21	OM
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250196	1	10/20/2017 15:21	OM
Chlorobenzene	BRL		0.42	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Chloroethane	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Chloroform	BRL		0.20	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Chloromethane	BRL		0.21	1.0	ug/L	250196	1	10/20/2017 15:21	OM
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	250196	1	10/20/2017 15:21	OM
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Cyclohexane	BRL		1.0	2.0	ug/L	250196	1	10/20/2017 15:21	OM
Dibromochloromethane	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Ethylbenzene	BRL		0.26	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Freon-113	BRL		0.32	5.0	ug/L	250196	1	10/20/2017 15:21	OM
Isopropylbenzene	BRL		0.43	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Methyl acetate	BRL		0.42	2.0	ug/L	250196	1	10/20/2017 15:21	OM
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Methylcyclohexane	BRL		0.39	2.0	ug/L	250196	1	10/20/2017 15:21	OM
Methylene chloride	BRL		1.2	5.0	ug/L	250196	1	10/20/2017 15:21	OM
Styrene	BRL		0.15	1.0	ug/L	250196	1	10/20/2017 15:21	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
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- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 27-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:10:00 AM
Lab ID:	1710I65-005	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	BRL		0.46	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Toluene	BRL		0.39	1.0	ug/L	250196	1	10/20/2017 15:21	OM
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250196	1	10/20/2017 15:21	OM
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250196	1	10/20/2017 15:21	OM
Trichloroethene	BRL		0.30	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Vinyl chloride	BRL		0.30	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Xylenes, Total	BRL		0.77	1.0	ug/L	250196	1	10/20/2017 15:21	OM
Surr: 4-Bromofluorobenzene	83		0	70-130	%REC	250196	1	10/20/2017 15:21	OM
Surr: Dibromofluoromethane	94		0	70-130	%REC	250196	1	10/20/2017 15:21	OM
Surr: Toluene-d8	95.1		0	70-130	%REC	250196	1	10/20/2017 15:21	OM
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	250368	1	10/24/2017 09:49	NP
Surr: 4-Bromofluorobenzene	94.7		0	84.6-119	%REC	250368	1	10/24/2017 09:49	NP
Surr: Dibromofluoromethane	101		0	80-119	%REC	250368	1	10/24/2017 09:49	NP
Surr: Toluene-d8	98.4		0	85-115	%REC	250368	1	10/24/2017 09:49	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Clear Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: GHD Services, Inc. AES Work Order Number: 1710I65

2. Carrier: FedEx ■ UPS ☐ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	●	○	○		
5.	Custody seals intact on shipping container?	●	○	○		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 1.9 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MJ 10/19/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). AU 10/19/17

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). AU 10/19/17

Checklist 6.9.17 Rev 2

Locked

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710I65

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710I65-001A	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/23/2017
1710I65-001A	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00PM	10/24/2017
1710I65-001B	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/23/2017
1710I65-001B	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/24/2017
1710I65-001B	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/26/2017
1710I65-001B	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	TOTAL MERCURY		10/25/2017 9:20:00PM	10/26/2017
1710I65-001C	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	ION SCAN			10/19/2017
1710I65-001D	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	Dissolved Metals by ICP/MS		10/24/2017 11:11:00AM	10/25/2017
1710I65-001E	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710I65-001F	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	Phosphorus, ortho			10/19/2017
1710I65-001G	GW-013926-101817-SDL-001	10/18/2017 10:28:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44AM	10/20/2017
1710I65-002A	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/23/2017
1710I65-002A	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00PM	10/24/2017
1710I65-002B	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/23/2017
1710I65-002B	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/24/2017
1710I65-002B	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/26/2017
1710I65-002B	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	TOTAL MERCURY		10/25/2017 9:20:00PM	10/26/2017
1710I65-002C	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	ION SCAN			10/19/2017
1710I65-002D	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	Dissolved Metals by ICP/MS		10/24/2017 11:11:00AM	10/25/2017
1710I65-002D	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	Dissolved Metals by ICP/MS		10/24/2017 11:11:00AM	10/26/2017
1710I65-002E	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710I65-002F	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	Phosphorus, ortho			10/19/2017
1710I65-002G	GW-013926-101817-SDL-002	10/18/2017 12:15:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44AM	10/20/2017
1710I65-003A	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/23/2017
1710I65-003A	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00PM	10/24/2017
1710I65-003B	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/23/2017
1710I65-003B	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/24/2017
1710I65-003B	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/26/2017
1710I65-003B	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	TOTAL MERCURY		10/25/2017 9:20:00PM	10/26/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710I65

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710I65-003C	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	ION SCAN			10/19/2017
1710I65-003D	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	Dissolved Metals by ICP/MS		10/24/2017 11:11:00AM	10/25/2017
1710I65-003D	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	Dissolved Metals by ICP/MS		10/24/2017 11:11:00AM	10/26/2017
1710I65-003E	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710I65-003F	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	Phosphorus, ortho			10/19/2017
1710I65-003G	GW-013926-1018-SDL-003	10/18/2017 2:45:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44AM	10/20/2017
1710I65-004A	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/23/2017
1710I65-004A	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00PM	10/24/2017
1710I65-004B	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/23/2017
1710I65-004B	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/24/2017
1710I65-004B	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	Total Metals by ICP/MS		10/20/2017 11:33:00AM	10/26/2017
1710I65-004B	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	TOTAL MERCURY		10/25/2017 9:20:00PM	10/26/2017
1710I65-004C	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	ION SCAN			10/19/2017
1710I65-004D	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	Dissolved Metals by ICP/MS		10/24/2017 11:11:00AM	10/25/2017
1710I65-004D	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	Dissolved Metals by ICP/MS		10/24/2017 11:11:00AM	10/26/2017
1710I65-004E	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710I65-004F	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	Phosphorus, ortho			10/19/2017
1710I65-004G	GW-013926-1018-SDL-004	10/18/2017 4:55:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44AM	10/20/2017
1710I65-005A	TRIP BLANK	10/19/2017 10:10:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/19/2017 3:37:00PM	10/20/2017
1710I65-005A	TRIP BLANK	10/19/2017 10:10:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00PM	10/24/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250169

Sample ID: **MB-250169** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816184**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	BRL	50.0									
Antimony	BRL	5.00									
Arsenic	0.3990	5.00									J
Barium	BRL	10.0									
Beryllium	0.1828	1.00									J
Cadmium	BRL	0.700									
Calcium	BRL	100									
Chromium	0.3120	5.00									J
Cobalt	BRL	5.00									
Copper	0.1832	2.00									J
Iron	BRL	100									
Lead	BRL	1.00									
Magnesium	5.318	100									J
Manganese	BRL	5.00									
Nickel	BRL	5.00									
Potassium	BRL	100									
Selenium	BRL	5.00									
Silver	BRL	1.00									
Sodium	177.4	500									J
Thallium	BRL	1.00									
Vanadium	2.621	5.00									J
Zinc	BRL	10.0									

Sample ID: **LCS-250169** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816185**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250169

Sample ID: **LCS-250169** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816185**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	883.4	50.0	1000		88.3	80	120				
Antimony	91.61	5.00	100.0		91.6	80	120				
Arsenic	89.49	5.00	100.0	0.3990	89.1	80	120				
Barium	89.50	10.0	100.0		89.5	80	120				
Beryllium	91.82	1.00	100.0	0.1828	91.6	80	120				
Cadmium	84.76	0.700	100.0		84.8	80	120				
Calcium	849.4	100	1000		84.9	80	120				
Chromium	91.09	5.00	100.0	0.3120	90.8	80	120				
Cobalt	91.47	5.00	100.0		91.5	80	120				
Copper	89.56	2.00	100.0	0.1832	89.4	80	120				
Iron	901.0	100	1000		90.1	80	120				
Lead	93.85	1.00	100.0		93.8	80	120				
Magnesium	930.4	100	1000	5.318	92.5	80	120				
Manganese	87.95	5.00	100.0		88.0	80	120				
Nickel	91.97	5.00	100.0		92.0	80	120				
Potassium	869.4	100	1000		86.9	80	120				
Selenium	87.46	5.00	100.0		87.5	80	120				
Silver	9.320	1.00	10.00		93.2	80	120				
Sodium	1093	500	1000	177.4	91.6	80	120				
Thallium	100.9	1.00	100.0		101	80	120				
Vanadium	90.84	5.00	100.0	2.621	88.2	80	120				
Zinc	91.19	10.0	100.0		91.2	80	120				

Sample ID: **1710G33-001AMS** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816189**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	872.4	50.0	1000	38.88	83.3	75	125				

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250169

Sample ID: **1710G33-001AMS** Client ID:
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B**
Units: **ug/L** BatchID: **250169**
Prep Date: **10/20/2017** Analysis Date: **10/23/2017**
Run No: **355070** Seq No: **7816189**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	89.67	5.00	100.0	0.2408	89.4	75	125				
Arsenic	89.52	5.00	100.0	0.8626	88.7	75	125				
Barium	131.9	10.0	100.0	44.81	87.1	75	125				
Beryllium	89.53	1.00	100.0	0.1525	89.4	75	125				
Cadmium	80.75	0.700	100.0		80.7	75	125				
Chromium	89.96	5.00	100.0	0.4403	89.5	75	125				
Cobalt	89.49	5.00	100.0	0.5039	89.0	75	125				
Copper	86.81	2.00	100.0	0.9637	85.8	75	125				
Iron	1030	100	1000	172.5	85.7	75	125				
Lead	91.71	1.00	100.0		91.7	75	125				
Magnesium	9535	100	1000	9166	36.9	75	125				S
Manganese	292.9	5.00	100.0	206.2	86.7	75	125				
Nickel	90.55	5.00	100.0	1.765	88.8	75	125				
Selenium	85.38	5.00	100.0		85.4	75	125				
Silver	9.179	1.00	10.00		91.8	75	125				
Thallium	98.17	1.00	100.0		98.2	75	125				
Vanadium	90.66	5.00	100.0	1.911	88.7	75	125				
Zinc	88.91	10.0	100.0	1.897	87.0	75	125				

Sample ID: **1710G33-001AMS** Client ID:
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B**
Units: **ug/L** BatchID: **250169**
Prep Date: **10/20/2017** Analysis Date: **10/24/2017**
Run No: **355070** Seq No: **7818214**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Calcium	29530	100	1000	27580	195	75	125				S
Potassium	5602	100	1000	4384	122	75	125				
Sodium	13270	500	1000	12420	84.5	75	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250169

Sample ID: **1710G33-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/23/2017** Seq No: **7816190**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	905.9	50.0	1000	38.88	86.7	75	125	872.4	3.77	20	
Antimony	89.27	5.00	100.0	0.2408	89.0	75	125	89.67	0.450	20	
Arsenic	88.75	5.00	100.0	0.8626	87.9	75	125	89.52	0.862	20	
Barium	131.9	10.0	100.0	44.81	87.1	75	125	131.9	0.037	20	
Beryllium	88.33	1.00	100.0	0.1525	88.2	75	125	89.53	1.35	20	
Cadmium	80.58	0.700	100.0		80.6	75	125	80.75	0.206	20	
Chromium	89.42	5.00	100.0	0.4403	89.0	75	125	89.96	0.603	20	
Cobalt	88.77	5.00	100.0	0.5039	88.3	75	125	89.49	0.807	20	
Copper	86.16	2.00	100.0	0.9637	85.2	75	125	86.81	0.748	20	
Iron	1048	100	1000	172.5	87.5	75	125	1030	1.72	20	
Lead	90.74	1.00	100.0		90.7	75	125	91.71	1.06	20	
Magnesium	9628	100	1000	9166	46.2	75	125	9535	0.977	20	S
Manganese	287.4	5.00	100.0	206.2	81.2	75	125	292.9	1.90	20	
Nickel	89.46	5.00	100.0	1.765	87.7	75	125	90.55	1.21	20	
Selenium	84.62	5.00	100.0		84.6	75	125	85.38	0.897	20	
Silver	9.184	1.00	10.00		91.8	75	125	9.179	0.053	20	
Thallium	98.37	1.00	100.0		98.4	75	125	98.17	0.194	20	
Vanadium	90.53	5.00	100.0	1.911	88.6	75	125	90.66	0.139	20	
Zinc	90.03	10.0	100.0	1.897	88.1	75	125	88.91	1.25	20	

Sample ID: **1710G33-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **355070**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250169** Analysis Date: **10/24/2017** Seq No: **7818215**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Calcium	28760	100	1000	27580	118	75	125	29530	2.62	20	
Potassium	5316	100	1000	4384	93.3	75	125	5602	5.23	20	
Sodium	12980	500	1000	12420	55.7	75	125	13270	2.20	20	S

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **MB-250196** Client ID:
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **250196**
Prep Date: **10/19/2017** Analysis Date: **10/19/2017**
Run No: **354765** Seq No: **7810633**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **MB-250196** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810633**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	37.29	0	50.00		74.6	70	130				
Surr: Dibromofluoromethane	53.56	0	50.00		107	70	130				
Surr: Toluene-d8	43.52	0	50.00		87.0	70	130				

Sample ID: **LCS-250196** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810630**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **LCS-250196** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810630**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.35	1.0	50.00		96.7	70	130				
1,1,2,2-Tetrachloroethane	45.97	1.0	50.00		91.9	70	130				
1,1,2-Trichloroethane	51.73	1.0	50.00		103	70	130				
1,1-Dichloroethane	52.72	1.0	50.00		105	70	130				
1,1-Dichloroethene	56.71	2.0	50.00		113	60	140				
1,2,4-Trichlorobenzene	37.14	1.0	50.00		74.3	70	130				
1,2-Dibromo-3-chloropropane	37.69	1.0	50.00		75.4	70	130				
1,2-Dichlorobenzene	44.37	1.0	50.00		88.7	70	130				
1,2-Dichloroethane	55.66	1.0	50.00		111	70	130				
1,2-Dichloropropane	47.11	1.0	50.00		94.2	70	130				
1,3-Dichlorobenzene	45.31	1.0	50.00		90.6	70	130				
1,4-Dichlorobenzene	46.63	1.0	50.00		93.3	70	130				
Benzene	47.87	1.0	50.00		95.7	70	130				
Bromodichloromethane	50.51	1.0	50.00		101	70	130				
Bromoform	79.96	1.0	50.00		160	70	130				S
Carbon tetrachloride	53.43	2.0	50.00		107	70	130				
Chlorobenzene	54.01	1.0	50.00		108	70	130				
Chloroform	50.42	1.0	50.00		101	70	130				
cis-1,2-Dichloroethene	49.37	1.0	50.00		98.7	70	130				
cis-1,3-Dichloropropene	42.31	1.0	50.00		84.6	70	130				
Dibromochloromethane	59.66	1.0	50.00		119	70	130				
Ethylbenzene	56.54	1.0	50.00		113	70	130				
Isopropylbenzene	38.84	1.0	50.00		77.7	70	130				
Methylene chloride	56.50	5.0	50.00		113	70	130				
Styrene	53.39	1.0	50.00		107	70	130				
Tetrachloroethene	52.24	1.0	50.00		104	70	130				
Toluene	48.72	1.0	50.00		97.4	70	130				

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **LCS-250196** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810630**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	50.54	2.0	50.00		101	70	130				
trans-1,3-Dichloropropene	42.75	2.0	50.00		85.5	70	130				
Trichloroethene	48.57	1.0	50.00		97.1	70	130				
Vinyl chloride	54.81	1.0	50.00		110	70	130				
Xylenes, Total	145.9	1.0	150.0		97.3	70	130				
Surr: 4-Bromofluorobenzene	51.33	0	50.00		103	70	130				
Surr: Dibromofluoromethane	50.79	0	50.00		102	70	130				
Surr: Toluene-d8	43.91	0	50.00		87.8	70	130				

Sample ID: **1710H14-002AMS** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810668**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	24530	500	25000		98.1	72.2	142				
1,1,2,2-Tetrachloroethane	25350	500	25000		101	69.5	127				
1,1,2-Trichloroethane	28230	500	25000		113	75.4	127				
1,1-Dichloroethane	27040	500	25000		108	64.4	128				
1,1-Dichloroethene	28690	1000	25000		115	64.3	149				
1,2,4-Trichlorobenzene	20580	500	25000		82.3	62.3	123				
1,2-Dibromo-3-chloropropane	20730	500	25000		82.9	58.9	131				
1,2-Dichlorobenzene	23380	500	25000		93.5	66.8	125				
1,2-Dichloroethane	29490	500	25000		118	71.9	139				
1,2-Dichloropropane	25000	500	25000		100.0	73.2	126				
1,3-Dichlorobenzene	24420	500	25000		97.7	69.7	123				
1,4-Dichlorobenzene	25710	500	25000		103	66.8	126				
Benzene	25780	500	25000		103	71.6	132				
Bromodichloromethane	27200	500	25000		109	71.8	133				
Bromoform	41520	500	25000		166	58.2	132				S

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **1710H14-002AMS** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810668**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Carbon tetrachloride	26950	1000	25000		108	61.8	142				
Chlorobenzene	27870	500	25000		111	73.1	126				
Chloroform	27160	500	25000		109	70.1	133				
cis-1,2-Dichloroethene	25510	500	25000		102	71.4	136				
cis-1,3-Dichloropropene	22690	500	25000		90.7	65.9	128				
Dibromochloromethane	31110	500	25000		124	63.8	134				
Ethylbenzene	29680	500	25000		119	81.2	130				
Isopropylbenzene	21210	500	25000		84.8	66	127				
Methylene chloride	28950	2500	25000	1790	109	68.4	135				
Styrene	27840	500	25000		111	70.1	128				
Tetrachloroethene	26640	500	25000		107	69.1	133				
Toluene	26210	500	25000		105	72.5	135				
trans-1,2-Dichloroethene	25510	1000	25000		102	62.4	132				
trans-1,3-Dichloropropene	23950	1000	25000		95.8	69.7	137				
Trichloroethene	26830	500	25000		107	70.2	132				
Vinyl chloride	26590	500	25000		106	55.9	136				
Xylenes, Total	78380	500	75000		104	76.1	139				
Surr: 4-Bromofluorobenzene	24510	0	25000		98.0	70	130				
Surr: Dibromofluoromethane	26290	0	25000		105	70	130				
Surr: Toluene-d8	22470	0	25000		89.9	70	130				

Sample ID: **1710H14-002AMSD** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810669**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	24220	500	25000		96.9	72.2	142	24530	1.29	20	
1,1,2,2-Tetrachloroethane	25910	500	25000		104	69.5	127	25350	2.17	20	
1,1,2-Trichloroethane	27770	500	25000		111	75.4	127	28230	1.63	20	

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **1710H14-002AMSD** Client ID: Units: **ug/L** Prep Date: **10/19/2017** Run No: **354765**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250196** Analysis Date: **10/19/2017** Seq No: **7810669**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethane	26480	500	25000		106	64.4	128	27040	2.07	20	
1,1-Dichloroethene	27620	1000	25000		110	64.3	149	28690	3.78	30.8	
1,2,4-Trichlorobenzene	22340	500	25000		89.4	62.3	123	20580	8.23	36.8	
1,2-Dibromo-3-chloropropane	21850	500	25000		87.4	58.9	131	20730	5.28	20	
1,2-Dichlorobenzene	25440	500	25000		102	66.8	125	23380	8.44	20	
1,2-Dichloroethane	28780	500	25000		115	71.9	139	29490	2.45	20	
1,2-Dichloropropane	24390	500	25000		97.5	73.2	126	25000	2.47	20	
1,3-Dichlorobenzene	26070	500	25000		104	69.7	123	24420	6.54	20	
1,4-Dichlorobenzene	27530	500	25000		110	66.8	126	25710	6.84	20	
Benzene	24790	500	25000		99.2	71.6	132	25780	3.92	20.7	
Bromodichloromethane	26540	500	25000		106	71.8	133	27200	2.48	20	
Bromoform	43040	500	25000		172	58.2	132	41520	3.60	20	S
Carbon tetrachloride	26380	1000	25000		106	61.8	142	26950	2.12	20	
Chlorobenzene	28660	500	25000		115	73.1	126	27870	2.78	26.6	
Chloroform	25570	500	25000		102	70.1	133	27160	6.03	20	
cis-1,2-Dichloroethene	24970	500	25000		99.9	71.4	136	25510	2.14	20	
cis-1,3-Dichloropropene	22760	500	25000		91.0	65.9	128	22690	0.308	20	
Dibromochloromethane	32850	500	25000		131	63.8	134	31110	5.44	20	
Ethylbenzene	31100	500	25000		124	81.2	130	29680	4.67	20	
Isopropylbenzene	22300	500	25000		89.2	66	127	21210	5.01	20	
Methylene chloride	28650	2500	25000	1790	107	68.4	135	28950	1.04	20	
Styrene	28630	500	25000		115	70.1	128	27840	2.82	20	
Tetrachloroethene	28850	500	25000		115	69.1	133	26640	7.95	20	
Toluene	25250	500	25000		101	72.5	135	26210	3.75	23.2	
trans-1,2-Dichloroethene	25280	1000	25000		101	62.4	132	25510	0.906	20	
trans-1,3-Dichloropropene	23730	1000	25000		94.9	69.7	137	23950	0.923	20	
Trichloroethene	25700	500	25000		103	70.2	132	26830	4.32	27.7	

Qualifiers:
> Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
< Less than Result value
E Estimated (value above quantitation range)
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix
B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250196

Sample ID: **1710H14-002AMSD** Client ID:
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B**
Units: **ug/L** BatchID: **250196**
Prep Date: **10/19/2017** Analysis Date: **10/19/2017**
Run No: **354765** Seq No: **7810669**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Vinyl chloride	26100	500	25000		104	55.9	136	26590	1.84	20	
Xylenes, Total	79990	500	75000		107	76.1	139	78380	2.04	20	
Surr: 4-Bromofluorobenzene	24520	0	25000		98.1	70	130	24510	0	0	
Surr: Dibromofluoromethane	25350	0	25000		101	70	130	26290	0	0	
Surr: Toluene-d8	21790	0	25000		87.1	70	130	22470	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250208

Sample ID: **MB-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813430**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.492	0	5.000		110	64.9	131				

Sample ID: **LCS-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813431**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09400	0.020	0.1000		94.0	60	140				
Surr: 4-Bromofluorobenzene	5.581	0	5.000		112	64.9	131				

Sample ID: **LCSD-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813432**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09600	0.020	0.1000		96.0	60	140	0.09400	2.11	20	
Surr: 4-Bromofluorobenzene	5.517	0	5.000		110	64.9	131	5.581	0	0	

Sample ID: **1710I65-001GMS** Client ID: **GW-013926-101817-SDL-001** Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813440**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.08454	0.020	0.0995		85.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.167	0	4.973		104	64.9	131				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250219

Sample ID: **MB-250219** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355182**
SampleType: **MBLK** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **250219** Analysis Date: **10/26/2017** Seq No: **7822891**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	BRL	100									
Manganese	BRL	5.00									

Sample ID: **LCS-250219** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355182**
SampleType: **LCS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **250219** Analysis Date: **10/25/2017** Seq No: **7819363**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	976.8	100	1000		97.7	80	120				
Manganese	93.37	5.00	100.0		93.4	80	120				

Sample ID: **1710I65-001DMS** Client ID: **GW-013926-101817-SDL-001** Units: **ug/L** Prep Date: **10/24/2017** Run No: **355182**
SampleType: **MS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **250219** Analysis Date: **10/25/2017** Seq No: **7819366**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	933.4	100	1000		93.3	75	125				
Manganese	90.96	5.00	100.0	2.509	88.5	75	125				

Sample ID: **1710I65-001DMSD** Client ID: **GW-013926-101817-SDL-001** Units: **ug/L** Prep Date: **10/24/2017** Run No: **355182**
SampleType: **MSD** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **250219** Analysis Date: **10/25/2017** Seq No: **7819369**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	913.9	100	1000		91.4	75	125	933.4	2.11	20	
Manganese	91.24	5.00	100.0	2.509	88.7	75	125	90.96	0.305	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250368

Sample ID: **MB-250368** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355059**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/23/2017** Seq No: **7815810**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	47.93	0	50.00		95.9	84.6	119				
Surr: Dibromofluoromethane	52.36	0	50.00		105	80	119				
Surr: Toluene-d8	49.81	0	50.00		99.6	85	115				

Sample ID: **LCS-250368** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355059**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/23/2017** Seq No: **7815809**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	9.380	5.0	10.00		93.8	68.1	133				
Surr: 4-Bromofluorobenzene	48.03	0	50.00		96.1	84.6	119				
Surr: Dibromofluoromethane	52.82	0	50.00		106	80	119				
Surr: Toluene-d8	49.98	0	50.00		100.0	85	115				

Sample ID: **1710I63-001AMS** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355162**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/24/2017** Seq No: **7818673**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	17.76	5.0	10.00	7.860	99.0	65.9	135				
Surr: 4-Bromofluorobenzene	47.14	0	50.00		94.3	84.6	119				
Surr: Dibromofluoromethane	52.19	0	50.00		104	80	119				
Surr: Toluene-d8	49.96	0	50.00		99.9	85	115				

Sample ID: **1710I63-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355162**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/24/2017** Seq No: **7818674**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	16.63	5.0	10.00	7.860	87.7	65.9	135	17.76	6.57	31.5	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250368

Sample ID: **1710I63-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355162**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/24/2017** Seq No: **7818674**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	46.77	0	50.00		93.5	84.6	119	47.14	0	0	
Surr: Dibromofluoromethane	52.13	0	50.00		104	80	119	52.19	0	0	
Surr: Toluene-d8	49.53	0	50.00		99.1	85	115	49.96	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: 250442

Sample ID: **MB-250442** Client ID: Units: **mg/L** Prep Date: **10/25/2017** Run No: **355334**
SampleType: **MBLK** TestCode: **Mercury, Total SW7470A** BatchID: **250442** Analysis Date: **10/26/2017** Seq No: **7822457**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.00020									

Sample ID: **LCS-250442** Client ID: Units: **mg/L** Prep Date: **10/25/2017** Run No: **355334**
SampleType: **LCS** TestCode: **Mercury, Total SW7470A** BatchID: **250442** Analysis Date: **10/26/2017** Seq No: **7822458**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004032	0.00020	0.0040		101	80	120				

Sample ID: **1710K44-001BMS** Client ID: Units: **mg/L** Prep Date: **10/25/2017** Run No: **355334**
SampleType: **MS** TestCode: **Mercury, Total SW7470A** BatchID: **250442** Analysis Date: **10/26/2017** Seq No: **7822460**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004172	0.00020	0.0040		104	70	130				

Sample ID: **1710K44-001BMSD** Client ID: Units: **mg/L** Prep Date: **10/25/2017** Run No: **355334**
SampleType: **MSD** TestCode: **Mercury, Total SW7470A** BatchID: **250442** Analysis Date: **10/26/2017** Seq No: **7822461**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004179	0.00020	0.0040		104	70	130	0.004172	0.177	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: R354850

Sample ID: **MB-R354850** Client ID: Units: **mg/L** Prep Date: Run No: **354850**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354850** Analysis Date: **10/19/2017** Seq No: **7811670**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R354850** Client ID: Units: **mg/L** Prep Date: Run No: **354850**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354850** Analysis Date: **10/19/2017** Seq No: **7811671**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1020	0.0100	0.1000		102	90	110				

Sample ID: **1710H82-002CMS** Client ID: Units: **mg/L** Prep Date: Run No: **354850**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354850** Analysis Date: **10/19/2017** Seq No: **7811673**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1980	0.0100	0.1000	0.1030	95.0	90	110				

Sample ID: **1710H82-002CMSD** Client ID: Units: **mg/L** Prep Date: Run No: **354850**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354850** Analysis Date: **10/19/2017** Seq No: **7811683**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.2040	0.0200	0.1000	0.1030	101	90	110	0.1980	2.99	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: R354909

Sample ID: **MB-R354909** Client ID: Units: **mg/L** Prep Date: Run No: **354909**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R354909** Analysis Date: **10/19/2017** Seq No: **7812251**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R354909** Client ID: Units: **mg/L** Prep Date: Run No: **354909**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R354909** Analysis Date: **10/19/2017** Seq No: **7812250**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	4.747	0.25	5.000		94.9	90	110				
Sulfate	22.73	1.0	25.00		90.9	90	110				

Sample ID: **1710H30-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **354909**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R354909** Analysis Date: **10/19/2017** Seq No: **7812258**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	66.74	2.5	50.00	16.99	99.5	90	110				
Sulfate	263.3	10	250.0	30.05	93.3	90	110				

Sample ID: **1710H31-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **354909**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R354909** Analysis Date: **10/19/2017** Seq No: **7812260**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	57.01	2.5	50.00	7.706	98.6	90	110				
Sulfate	264.7	10	250.0	27.73	94.8	90	110				

Sample ID: **1710H30-002BMSD** Client ID: Units: **mg/L** Prep Date: Run No: **354909**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R354909** Analysis Date: **10/19/2017** Seq No: **7812259**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	67.83	2.5	50.00	16.99	102	90	110	66.74	1.63	20	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 27-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: **R354909**

Sample ID: **1710H30-002BMSD** Client ID:
SampleType: **MSD** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date:
BatchID: **R354909** Analysis Date: **10/19/2017**
Run No: **354909**
Seq No: **7812259**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfate	264.5	10	250.0	30.05	93.8	90	110	263.3	0.459	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710I65

ANALYTICAL QC SUMMARY REPORT

BatchID: R355045

Sample ID: **MB-R355045** Client ID: Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815491**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-R355045** Client ID: Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815493**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9660	0.020	1.000		96.6	90	110				

Sample ID: **1710I63-001FMS** Client ID: Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815511**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9880	0.020	1.000		98.8	90	110				

Sample ID: **1710K78-002AMS** Client ID: Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815496**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.030	0.020	1.000	0.03430	99.6	90	110				

Sample ID: **1710K78-002AMSD** Client ID: Units: **mg/L** Prep Date: Run No: **355045**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355045** Analysis Date: **10/23/2017** Seq No: **7815498**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	1.040	0.020	1.000	0.03430	101	90	110	1.030	0.966	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

October 31, 2017

Terefe Mazengia
GHD Services, Inc.

3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1710K43

Analytical Environmental Services, Inc. received 7 samples on 10/20/2017 10:10:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/18.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1110K43

Date: 10/19/17 Page 1 of 1

COMPANY: GHD

ADDRESS: 3075 Breckinridge Blvd Duluth, GA 30096 Suite 470

PHONE: 678-280-2150

FAX:

SAMPLED BY: Stephanie Lindo

SIGNATURE: Stephanie Lindo

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL VOCs + TMBs	1,4 Dioxane	SSR Metals	Fe + Manganese	D.S. Gases	Alkalinity	Chloride	Nitrate	Sulfate	TOC	Ammonia	orthophosphate	EDB	REMARKS	No # of Containers
1	GW-013926-101917-SDL-006	10/19/17	12:50	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	See SSOW #	13
2	GW-013926-101917-DJB-104		10:45	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	13926-25-004	13
3	GW-013926-101917-DJB-105		11:45	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		13
4	GW-013926-101917-DJB-106		14:10	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	2 coolers	13
5	GW-013926-101917-DJB-107		15:30	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	2 COCs	13
6	GW-013926-101917-DJB-108	10/19/17	16:40	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		13
7	Trip Blank						X	X													6
8																					
9																					
10																					
11																					
12																					
13																					
14																					

PRESERVATION (See codes)

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1. Stephanie Lindo	10/19/17 17:00	1. Mag	10/20/17 ~~10/19~~
2.		2. 5.6 + 0.6	
3.		3.	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FEDEX UPS MAIL COURIER

GREYHOUND OTHER_____

PROJECT INFORMATION

PROJECT NAME: Aqua-tech

PROJECT #: 013926

SITE ADDRESS: Greer, SC

SEND REPORT TO:

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

RECEIPT

Total # of Containers 84

Turnaround Time Request

- ● Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other _____

STATE PROGRAM (if any):

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1710K43

Case Narrative

Microextractable VOC Analysis by Method 8011:

Matrix spike duplicate analyses were not performed with Batch 250208 due to insufficient sample volume.

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-SDL-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 12:50:00 PM
Lab ID:	1710K43-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,1,2,2-Tetrachloroethane	5.4		0.34	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250336	1	10/23/2017 15:24	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 15:24	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250336	1	10/23/2017 15:24	NP
2-Butanone	BRL		2.5	10	ug/L	250336	1	10/23/2017 15:24	NP
2-Hexanone	BRL		0.67	10	ug/L	250336	1	10/23/2017 15:24	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250336	1	10/23/2017 15:24	NP
Acetone	BRL		3.6	20	ug/L	250336	1	10/23/2017 15:24	NP
Benzene	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Bromoform	BRL		0.19	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Bromomethane	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250336	1	10/23/2017 15:24	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250336	1	10/23/2017 15:24	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Chloroethane	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Chloroform	BRL		0.20	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Chloromethane	BRL		0.21	1.0	ug/L	250336	1	10/23/2017 15:24	NP
cis-1,2-Dichloroethene	51		0.28	1.0	ug/L	250336	1	10/23/2017 15:24	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250336	1	10/23/2017 15:24	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Freon-113	BRL		0.32	5.0	ug/L	250336	1	10/23/2017 15:24	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250336	1	10/23/2017 15:24	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250336	1	10/23/2017 15:24	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-SDL-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 12:50:00 PM
Lab ID:	1710K43-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250336	1	10/23/2017 15:24	NP
Styrene	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Tetrachloroethene	8.0		0.46	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Toluene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 15:24	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250336	1	10/23/2017 15:24	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250336	1	10/23/2017 15:24	NP
Trichloroethene	61		0.30	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250336	1	10/23/2017 15:24	NP
Surr: 4-Bromofluorobenzene	90.7		0	70-130	%REC	250336	1	10/23/2017 15:24	NP
Surr: Dibromofluoromethane	104		0	70-130	%REC	250336	1	10/23/2017 15:24	NP
Surr: Toluene-d8	96.3		0	70-130	%REC	250336	1	10/23/2017 15:24	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.620	J	0.337	1.00	mg/L	R354991	1	10/23/2017 10:39	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	4.38	J	0.156	5.00	ug/L	250314	1	10/29/2017 19:10	TA
Barium	110		0.185	10.0	ug/L	250314	1	10/29/2017 19:10	TA
Cadmium	0.724		0.148	0.700	ug/L	250314	1	10/29/2017 19:10	TA
Chromium	0.415	J	0.193	5.00	ug/L	250314	1	10/29/2017 19:10	TA
Copper	0.897	J	0.126	2.00	ug/L	250314	1	10/29/2017 19:10	TA
Iron	BRL		6.47	100	ug/L	250314	1	10/29/2017 19:10	TA
Lead	BRL		0.215	1.00	ug/L	250314	1	10/29/2017 19:10	TA
Manganese	2030		0.344	5.00	ug/L	250314	1	10/29/2017 19:10	TA
Selenium	0.789	J	0.264	5.00	ug/L	250314	1	10/29/2017 19:10	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0190		0.00410	0.0100	mg/L	R354944	1	10/20/2017 18:21	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R355046	1	10/23/2017 14:51	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250208	1	10/20/2017 21:36	UH
Surr: 4-Bromofluorobenzene	111		0	64.9-131	%REC	250208	1	10/20/2017 21:36	UH
ION SCAN SW9056A									
Chloride	11		0.17	1.0	mg/L	R355008	1	10/20/2017 16:27	VL

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-SDL-006
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 12:50:00 PM
Lab ID:	1710K43-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	0.28		0.055	0.25	mg/L	R355008	1	10/20/2017 16:27	VL
Sulfate	4.8		0.12	1.0	mg/L	R355008	1	10/20/2017 16:27	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250323	1	10/24/2017 14:18	UH
Ethylene	BRL		3.5	7.0	ug/L	250323	1	10/24/2017 14:18	UH
Methane	BRL		1.2	4.0	ug/L	250323	1	10/24/2017 14:18	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	21.0		1.68	3.00	mg/L	R355213	1	10/25/2017 11:00	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	14		0.47	2.0	ug/L	250368	1	10/24/2017 20:58	NP
Surr: 4-Bromofluorobenzene	95.4		0	84.6-119	%REC	250368	1	10/24/2017 20:58	NP
Surr: Dibromofluoromethane	104		0	80-119	%REC	250368	1	10/24/2017 20:58	NP
Surr: Toluene-d8	98.9		0	85-115	%REC	250368	1	10/24/2017 20:58	NP

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-104
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:45:00 AM
Lab ID:	1710K43-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250336	1	10/23/2017 15:48	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 15:48	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250336	1	10/23/2017 15:48	NP
2-Butanone	BRL		2.5	10	ug/L	250336	1	10/23/2017 15:48	NP
2-Hexanone	BRL		0.67	10	ug/L	250336	1	10/23/2017 15:48	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250336	1	10/23/2017 15:48	NP
Acetone	BRL		3.6	20	ug/L	250336	1	10/23/2017 15:48	NP
Benzene	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Bromoform	BRL		0.19	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Bromomethane	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250336	1	10/23/2017 15:48	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250336	1	10/23/2017 15:48	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Chloroethane	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Chloroform	BRL		0.20	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Chloromethane	BRL		0.21	1.0	ug/L	250336	1	10/23/2017 15:48	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	250336	1	10/23/2017 15:48	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250336	1	10/23/2017 15:48	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Freon-113	BRL		0.32	5.0	ug/L	250336	1	10/23/2017 15:48	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250336	1	10/23/2017 15:48	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250336	1	10/23/2017 15:48	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-104
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:45:00 AM
Lab ID:	1710K43-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250336	1	10/23/2017 15:48	NP
Styrene	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Toluene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 15:48	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250336	1	10/23/2017 15:48	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250336	1	10/23/2017 15:48	NP
Trichloroethene	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250336	1	10/23/2017 15:48	NP
Surr: 4-Bromofluorobenzene	99.4		0	70-130	%REC	250336	1	10/23/2017 15:48	NP
Surr: Dibromofluoromethane	101		0	70-130	%REC	250336	1	10/23/2017 15:48	NP
Surr: Toluene-d8	94.7		0	70-130	%REC	250336	1	10/23/2017 15:48	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R354991	1	10/23/2017 11:09	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	6.56		0.156	5.00	ug/L	250314	1	10/29/2017 19:19	TA
Barium	44.5		0.185	10.0	ug/L	250314	1	10/29/2017 19:19	TA
Cadmium	BRL		0.148	0.700	ug/L	250314	1	10/29/2017 19:19	TA
Chromium	0.713	J	0.193	5.00	ug/L	250314	1	10/29/2017 19:19	TA
Copper	0.671	J	0.126	2.00	ug/L	250314	1	10/29/2017 19:19	TA
Iron	231		6.47	100	ug/L	250314	1	10/29/2017 19:19	TA
Lead	0.315	J	0.215	1.00	ug/L	250314	1	10/29/2017 19:19	TA
Manganese	3.59	J	0.344	5.00	ug/L	250314	1	10/29/2017 19:19	TA
Selenium	1.04	J	0.264	5.00	ug/L	250314	1	10/29/2017 19:19	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0133		0.00410	0.0100	mg/L	R354944	1	10/20/2017 18:22	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R355046	1	10/23/2017 14:57	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250208	1	10/20/2017 22:05	UH
Surr: 4-Bromofluorobenzene	117		0	64.9-131	%REC	250208	1	10/20/2017 22:05	UH
ION SCAN SW9056A									
Chloride	2.1		0.17	1.0	mg/L	R355008	1	10/20/2017 16:42	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-104
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:45:00 AM
Lab ID:	1710K43-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	1.7		0.055	0.25	mg/L	R355008	1	10/20/2017 16:42	VL
Sulfate	15		0.12	1.0	mg/L	R355008	1	10/20/2017 16:42	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250323	1	10/24/2017 14:23	UH
Ethylene	BRL		3.5	7.0	ug/L	250323	1	10/24/2017 14:23	UH
Methane	BRL		1.2	4.0	ug/L	250323	1	10/24/2017 14:23	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	18.0		1.68	3.00	mg/L	R355213	1	10/25/2017 11:00	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	250368	1	10/24/2017 21:24	NP
Surr: 4-Bromofluorobenzene	94.2		0	84.6-119	%REC	250368	1	10/24/2017 21:24	NP
Surr: Dibromofluoromethane	106		0	80-119	%REC	250368	1	10/24/2017 21:24	NP
Surr: Toluene-d8	99.3		0	85-115	%REC	250368	1	10/24/2017 21:24	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-105
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 11:45:00 AM
Lab ID:	1710K43-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250336	1	10/23/2017 16:12	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 16:12	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250336	1	10/23/2017 16:12	NP
2-Butanone	BRL		2.5	10	ug/L	250336	1	10/23/2017 16:12	NP
2-Hexanone	BRL		0.67	10	ug/L	250336	1	10/23/2017 16:12	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250336	1	10/23/2017 16:12	NP
Acetone	BRL		3.6	20	ug/L	250336	1	10/23/2017 16:12	NP
Benzene	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Bromoform	BRL		0.19	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Bromomethane	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250336	1	10/23/2017 16:12	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250336	1	10/23/2017 16:12	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Chloroethane	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Chloroform	BRL		0.20	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Chloromethane	BRL		0.21	1.0	ug/L	250336	1	10/23/2017 16:12	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	250336	1	10/23/2017 16:12	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250336	1	10/23/2017 16:12	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Freon-113	BRL		0.32	5.0	ug/L	250336	1	10/23/2017 16:12	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250336	1	10/23/2017 16:12	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250336	1	10/23/2017 16:12	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-105
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 11:45:00 AM
Lab ID:	1710K43-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250336	1	10/23/2017 16:12	NP
Styrene	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Toluene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 16:12	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250336	1	10/23/2017 16:12	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250336	1	10/23/2017 16:12	NP
Trichloroethene	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250336	1	10/23/2017 16:12	NP
Surr: 4-Bromofluorobenzene	95.4		0	70-130	%REC	250336	1	10/23/2017 16:12	NP
Surr: Dibromofluoromethane	103		0	70-130	%REC	250336	1	10/23/2017 16:12	NP
Surr: Toluene-d8	97.7		0	70-130	%REC	250336	1	10/23/2017 16:12	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	2.15		0.337	1.00	mg/L	R354991	1	10/23/2017 11:39	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	7.39		0.156	5.00	ug/L	250314	1	10/29/2017 19:21	TA
Barium	23.4		0.185	10.0	ug/L	250314	1	10/29/2017 19:21	TA
Cadmium	BRL		0.148	0.700	ug/L	250314	1	10/29/2017 19:21	TA
Chromium	1.000	J	0.193	5.00	ug/L	250314	1	10/29/2017 19:21	TA
Copper	1.74	J	0.126	2.00	ug/L	250314	1	10/29/2017 19:21	TA
Iron	248		6.47	100	ug/L	250314	1	10/29/2017 19:21	TA
Lead	0.298	J	0.215	1.00	ug/L	250314	1	10/29/2017 19:21	TA
Manganese	89.5		0.344	5.00	ug/L	250314	1	10/29/2017 19:21	TA
Selenium	0.387	J	0.264	5.00	ug/L	250314	1	10/29/2017 19:21	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0820		0.00410	0.0100	mg/L	R354944	1	10/20/2017 18:23	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R355046	1	10/23/2017 15:02	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250208	1	10/20/2017 22:34	UH
Surr: 4-Bromofluorobenzene	119		0	64.9-131	%REC	250208	1	10/20/2017 22:34	UH
ION SCAN SW9056A									
Chloride	1.9		0.17	1.0	mg/L	R355008	1	10/20/2017 16:57	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-105
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 11:45:00 AM
Lab ID:	1710K43-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	1.2		0.055	0.25	mg/L	R355008	1	10/20/2017 16:57	VL
Sulfate	2.1		0.12	1.0	mg/L	R355008	1	10/20/2017 16:57	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250323	1	10/24/2017 14:28	UH
Ethylene	BRL		3.5	7.0	ug/L	250323	1	10/24/2017 14:28	UH
Methane	44		1.2	4.0	ug/L	250323	1	10/24/2017 14:28	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	27.0		1.68	3.00	mg/L	R355213	1	10/25/2017 11:00	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	250368	1	10/24/2017 21:49	NP
Surr: 4-Bromofluorobenzene	95		0	84.6-119	%REC	250368	1	10/24/2017 21:49	NP
Surr: Dibromofluoromethane	105		0	80-119	%REC	250368	1	10/24/2017 21:49	NP
Surr: Toluene-d8	98.4		0	85-115	%REC	250368	1	10/24/2017 21:49	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 2:10:00 PM
Lab ID:	1710K43-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250336	1	10/23/2017 17:24	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 17:24	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250336	1	10/23/2017 17:24	NP
2-Butanone	BRL		2.5	10	ug/L	250336	1	10/23/2017 17:24	NP
2-Hexanone	BRL		0.67	10	ug/L	250336	1	10/23/2017 17:24	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250336	1	10/23/2017 17:24	NP
Acetone	BRL		3.6	20	ug/L	250336	1	10/23/2017 17:24	NP
Benzene	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Bromoform	BRL		0.19	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Bromomethane	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250336	1	10/23/2017 17:24	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250336	1	10/23/2017 17:24	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Chloroethane	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Chloroform	BRL		0.20	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Chloromethane	BRL		0.21	1.0	ug/L	250336	1	10/23/2017 17:24	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	250336	1	10/23/2017 17:24	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250336	1	10/23/2017 17:24	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Freon-113	BRL		0.32	5.0	ug/L	250336	1	10/23/2017 17:24	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250336	1	10/23/2017 17:24	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250336	1	10/23/2017 17:24	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 2:10:00 PM
Lab ID:	1710K43-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250336	1	10/23/2017 17:24	NP
Styrene	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Toluene	0.73	J	0.39	1.0	ug/L	250336	1	10/23/2017 17:24	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250336	1	10/23/2017 17:24	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250336	1	10/23/2017 17:24	NP
Trichloroethene	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Vinyl chloride	3.8		0.30	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250336	1	10/23/2017 17:24	NP
Surr: 4-Bromofluorobenzene	96.7		0	70-130	%REC	250336	1	10/23/2017 17:24	NP
Surr: Dibromofluoromethane	104		0	70-130	%REC	250336	1	10/23/2017 17:24	NP
Surr: Toluene-d8	98.9		0	70-130	%REC	250336	1	10/23/2017 17:24	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R354991	1	10/23/2017 12:09	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	10.9		0.156	5.00	ug/L	250314	1	10/29/2017 19:23	TA
Barium	40.3		0.185	10.0	ug/L	250314	1	10/29/2017 19:23	TA
Cadmium	BRL		0.148	0.700	ug/L	250314	1	10/29/2017 19:23	TA
Chromium	0.284	J	0.193	5.00	ug/L	250314	1	10/29/2017 19:23	TA
Copper	0.709	J	0.126	2.00	ug/L	250314	1	10/29/2017 19:23	TA
Iron	406		6.47	100	ug/L	250314	1	10/29/2017 19:23	TA
Lead	4.62		0.215	1.00	ug/L	250314	1	10/29/2017 19:23	TA
Manganese	1440		0.344	5.00	ug/L	250314	1	10/29/2017 19:23	TA
Selenium	BRL		0.264	5.00	ug/L	250314	1	10/29/2017 19:23	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.115		0.00410	0.0100	mg/L	R354944	1	10/20/2017 18:24	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	1.03		0.010	0.020	mg/L	R355046	1	10/23/2017 15:04	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250208	1	10/20/2017 23:03	UH
Surr: 4-Bromofluorobenzene	111		0	64.9-131	%REC	250208	1	10/20/2017 23:03	UH
ION SCAN SW9056A									
Chloride	1.4		0.17	1.0	mg/L	R355008	1	10/20/2017 17:13	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-106
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 2:10:00 PM
Lab ID:	1710K43-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	0.15	J	0.055	0.25	mg/L	R355008	1	10/20/2017 17:13	VL
Sulfate	6.7		0.12	1.0	mg/L	R355008	1	10/20/2017 17:13	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250323	1	10/24/2017 14:32	UH
Ethylene	BRL		3.5	7.0	ug/L	250323	1	10/24/2017 14:32	UH
Methane	1500		12	40	ug/L	250323	10	10/24/2017 14:56	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	82.0		1.68	3.00	mg/L	R355213	1	10/25/2017 11:00	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	1.7	J	0.47	2.0	ug/L	250368	1	10/24/2017 22:15	NP
Surr: 4-Bromofluorobenzene	95.1		0	84.6-119	%REC	250368	1	10/24/2017 22:15	NP
Surr: Dibromofluoromethane	105		0	80-119	%REC	250368	1	10/24/2017 22:15	NP
Surr: Toluene-d8	98.7		0	85-115	%REC	250368	1	10/24/2017 22:15	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 3:30:00 PM
Lab ID:	1710K43-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,1-Dichloroethane	1.8		0.43	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250336	1	10/23/2017 16:36	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 16:36	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250336	1	10/23/2017 16:36	NP
2-Butanone	BRL		2.5	10	ug/L	250336	1	10/23/2017 16:36	NP
2-Hexanone	BRL		0.67	10	ug/L	250336	1	10/23/2017 16:36	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250336	1	10/23/2017 16:36	NP
Acetone	BRL		3.6	20	ug/L	250336	1	10/23/2017 16:36	NP
Benzene	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Bromoform	BRL		0.19	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Bromomethane	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250336	1	10/23/2017 16:36	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250336	1	10/23/2017 16:36	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Chloroethane	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Chloroform	BRL		0.20	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Chloromethane	BRL		0.21	1.0	ug/L	250336	1	10/23/2017 16:36	NP
cis-1,2-Dichloroethene	20		0.28	1.0	ug/L	250336	1	10/23/2017 16:36	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250336	1	10/23/2017 16:36	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Freon-113	BRL		0.32	5.0	ug/L	250336	1	10/23/2017 16:36	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250336	1	10/23/2017 16:36	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250336	1	10/23/2017 16:36	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- Less than Result value
- 'arr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 3:30:00 PM
Lab ID:	1710K43-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250336	1	10/23/2017 16:36	NP
Styrene	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Tetrachloroethene	11		0.46	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Toluene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 16:36	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250336	1	10/23/2017 16:36	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250336	1	10/23/2017 16:36	NP
Trichloroethene	6.2		0.30	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250336	1	10/23/2017 16:36	NP
Surr: 4-Bromofluorobenzene	98.4		0	70-130	%REC	250336	1	10/23/2017 16:36	NP
Surr: Dibromofluoromethane	104		0	70-130	%REC	250336	1	10/23/2017 16:36	NP
Surr: Toluene-d8	95.7		0	70-130	%REC	250336	1	10/23/2017 16:36	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R354991	1	10/23/2017 12:37	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	8.38		0.156	5.00	ug/L	250314	1	10/29/2017 19:30	TA
Barium	16.2		0.185	10.0	ug/L	250314	1	10/29/2017 19:30	TA
Cadmium	BRL		0.148	0.700	ug/L	250314	1	10/29/2017 19:30	TA
Chromium	0.257	J	0.193	5.00	ug/L	250314	1	10/29/2017 19:30	TA
Copper	0.554	J	0.126	2.00	ug/L	250314	1	10/29/2017 19:30	TA
Iron	BRL		6.47	100	ug/L	250314	1	10/29/2017 19:30	TA
Lead	0.600	J	0.215	1.00	ug/L	250314	1	10/29/2017 19:30	TA
Manganese	0.573	J	0.344	5.00	ug/L	250314	1	10/29/2017 19:30	TA
Selenium	BRL		0.264	5.00	ug/L	250314	1	10/29/2017 19:30	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0168		0.00410	0.0100	mg/L	R354944	1	10/20/2017 18:27	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R355046	1	10/23/2017 15:06	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250208	1	10/20/2017 23:32	UH
Surr: 4-Bromofluorobenzene	102		0	64.9-131	%REC	250208	1	10/20/2017 23:32	UH
ION SCAN SW9056A									
Chloride	1.2		0.17	1.0	mg/L	R355008	1	10/20/2017 17:28	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-107
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 3:30:00 PM
Lab ID:	1710K43-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	BRL		0.055	0.25	mg/L	R355008	1	10/20/2017 17:28	VL
Sulfate	7.6		0.12	1.0	mg/L	R355008	1	10/20/2017 17:28	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250323	1	10/24/2017 14:37	UH
Ethylene	BRL		3.5	7.0	ug/L	250323	1	10/24/2017 14:37	UH
Methane	2.0	J	1.2	4.0	ug/L	250323	1	10/24/2017 14:37	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	31.0		1.68	3.00	mg/L	R355213	1	10/25/2017 11:00	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	1.6	J	0.47	2.0	ug/L	250368	1	10/24/2017 22:40	NP
Surr: 4-Bromofluorobenzene	95.4		0	84.6-119	%REC	250368	1	10/24/2017 22:40	NP
Surr: Dibromofluoromethane	106		0	80-119	%REC	250368	1	10/24/2017 22:40	NP
Surr: Toluene-d8	98.9		0	85-115	%REC	250368	1	10/24/2017 22:40	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 4:40:00 PM
Lab ID:	1710K43-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,1,2,2-Tetrachloroethane	4.9		0.34	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,1-Dichloroethane	13		0.43	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,1-Dichloroethene	5.2		0.40	2.0	ug/L	250336	1	10/23/2017 17:47	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 17:47	NP
1,4-Dichlorobenzene	0.88	J	0.33	1.0	ug/L	250336	1	10/23/2017 17:47	NP
2-Butanone	BRL		2.5	10	ug/L	250336	1	10/23/2017 17:47	NP
2-Hexanone	BRL		0.67	10	ug/L	250336	1	10/23/2017 17:47	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250336	1	10/23/2017 17:47	NP
Acetone	BRL		3.6	20	ug/L	250336	1	10/23/2017 17:47	NP
Benzene	3.3		0.37	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Bromoform	BRL		0.19	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Bromomethane	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250336	1	10/23/2017 17:47	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250336	1	10/23/2017 17:47	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Chloroethane	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Chloroform	1.0		0.20	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Chloromethane	BRL		0.21	1.0	ug/L	250336	1	10/23/2017 17:47	NP
cis-1,2-Dichloroethene	110		0.28	1.0	ug/L	250336	1	10/23/2017 17:47	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250336	1	10/23/2017 17:47	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Freon-113	BRL		0.32	5.0	ug/L	250336	1	10/23/2017 17:47	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250336	1	10/23/2017 17:47	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250336	1	10/23/2017 17:47	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 4:40:00 PM
Lab ID:	1710K43-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		1.2	5.0	ug/L	250336	1	10/23/2017 17:47	NP
Styrene	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Tetrachloroethene	29		0.46	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Toluene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 17:47	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250336	1	10/23/2017 17:47	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250336	1	10/23/2017 17:47	NP
Trichloroethene	85		0.30	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250336	1	10/23/2017 17:47	NP
Surr: 4-Bromofluorobenzene	99.1		0	70-130	%REC	250336	1	10/23/2017 17:47	NP
Surr: Dibromofluoromethane	106		0	70-130	%REC	250336	1	10/23/2017 17:47	NP
Surr: Toluene-d8	97.4		0	70-130	%REC	250336	1	10/23/2017 17:47	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R354991	1	10/23/2017 13:08	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	8.84		0.156	5.00	ug/L	250314	1	10/29/2017 19:32	TA
Barium	189		0.185	10.0	ug/L	250314	1	10/29/2017 19:32	TA
Cadmium	0.189	J	0.148	0.700	ug/L	250314	1	10/29/2017 19:32	TA
Chromium	0.352	J	0.193	5.00	ug/L	250314	1	10/29/2017 19:32	TA
Copper	0.738	J	0.126	2.00	ug/L	250314	1	10/29/2017 19:32	TA
Iron	BRL		6.47	100	ug/L	250314	1	10/29/2017 19:32	TA
Lead	BRL		0.215	1.00	ug/L	250314	1	10/29/2017 19:32	TA
Manganese	3560		0.344	5.00	ug/L	250314	1	10/29/2017 19:32	TA
Selenium	1.18	J	0.264	5.00	ug/L	250314	1	10/29/2017 19:32	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0365		0.00410	0.0100	mg/L	R354944	1	10/20/2017 18:28	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.062		0.010	0.020	mg/L	R355046	1	10/23/2017 15:07	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250208	1	10/21/2017 00:01	UH
Surr: 4-Bromofluorobenzene	98.8		0	64.9-131	%REC	250208	1	10/21/2017 00:01	UH
ION SCAN SW9056A									
Chloride	15		0.17	1.0	mg/L	R355008	1	10/20/2017 17:43	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-DJB-108
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 4:40:00 PM
Lab ID:	1710K43-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Nitrate	3.4		0.055	0.25	mg/L	R355008	1	10/20/2017 17:43	VL
Sulfate	13		0.12	1.0	mg/L	R355008	1	10/20/2017 17:43	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250323	1	10/24/2017 14:42	UH
Ethylene	BRL		3.5	7.0	ug/L	250323	1	10/24/2017 14:42	UH
Methane	28		1.2	4.0	ug/L	250323	1	10/24/2017 14:42	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	44.0		1.68	3.00	mg/L	R355213	1	10/25/2017 11:00	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	68		0.47	2.0	ug/L	250368	1	10/24/2017 23:06	NP
Surr: 4-Bromofluorobenzene	94.5		0	84.6-119	%REC	250368	1	10/24/2017 23:06	NP
Surr: Dibromofluoromethane	105		0	80-119	%REC	250368	1	10/24/2017 23:06	NP
Surr: Toluene-d8	98.6		0	85-115	%REC	250368	1	10/24/2017 23:06	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 10:10:00 AM
Lab ID:	1710K43-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250336	1	10/23/2017 15:01	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,2,4-Trimethylbenzene	BRL		0.29	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,3,5-Trimethylbenzene	BRL		0.40	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 15:01	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250336	1	10/23/2017 15:01	NP
2-Butanone	BRL		2.5	10	ug/L	250336	1	10/23/2017 15:01	NP
2-Hexanone	BRL		0.67	10	ug/L	250336	1	10/23/2017 15:01	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250336	1	10/23/2017 15:01	NP
Acetone	BRL		3.6	20	ug/L	250336	1	10/23/2017 15:01	NP
Benzene	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Bromoform	BRL		0.19	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Bromomethane	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250336	1	10/23/2017 15:01	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250336	1	10/23/2017 15:01	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Chloroethane	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Chloroform	BRL		0.20	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Chloromethane	BRL		0.21	1.0	ug/L	250336	1	10/23/2017 15:01	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	250336	1	10/23/2017 15:01	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250336	1	10/23/2017 15:01	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Freon-113	BRL		0.32	5.0	ug/L	250336	1	10/23/2017 15:01	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250336	1	10/23/2017 15:01	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250336	1	10/23/2017 15:01	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 31-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 10:10:00 AM
Lab ID:	1710K43-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)									
Methylene chloride	BRL		1.2	5.0	ug/L	250336	1	10/23/2017 15:01	NP
Styrene	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Tetrachloroethene	BRL		0.46	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Toluene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 15:01	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250336	1	10/23/2017 15:01	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250336	1	10/23/2017 15:01	NP
Trichloroethene	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250336	1	10/23/2017 15:01	NP
Surr: 4-Bromofluorobenzene	98.3		0	70-130	%REC	250336	1	10/23/2017 15:01	NP
Surr: Dibromofluoromethane	96.8		0	70-130	%REC	250336	1	10/23/2017 15:01	NP
Surr: Toluene-d8	95.6		0	70-130	%REC	250336	1	10/23/2017 15:01	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM (SW5030B)									
1,4-Dioxane	BRL		0.47	2.0	ug/L	250368	1	10/24/2017 18:25	NP
Surr: 4-Bromofluorobenzene	93.6		0	84.6-119	%REC	250368	1	10/24/2017 18:25	NP
Surr: Dibromofluoromethane	105		0	80-119	%REC	250368	1	10/24/2017 18:25	NP
Surr: Toluene-d8	99.2		0	85-115	%REC	250368	1	10/24/2017 18:25	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

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AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **GHD Services, Inc.** AES Work Order Number: **1710K43**

2. Carrier: FedEx ■ UPS ☐ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	○	●	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 5.6 °C Cooler 2 Temperature 0.6 °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). ALJ 10/20/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). ALJ 10/20/17

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). ALJ 10/20/17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710K43

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710K43-001A	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 9:25:00 AM	10/23/2017
1710K43-001A	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00 PM	10/24/2017
1710K43-001B	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	APPENDIX I METALS		10/23/2017 6:48:00 PM	10/27/2017
1710K43-001B	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	Total Metals by ICP/MS		10/23/2017 6:48:00 PM	10/29/2017
1710K43-001C	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	GC Analysis of Gaseous Samples		10/23/2017 1:30:30 PM	10/24/2017
1710K43-001D	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	Alkalinity by SM2320B			10/25/2017
1710K43-001E	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710K43-001E	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	Total Organic Carbon (TOC)			10/23/2017
1710K43-001F	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	Phosphorus, ortho			10/20/2017
1710K43-001F	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	ION SCAN			10/20/2017
1710K43-001G	GW-013926-101917-SDL-006	10/19/2017 12:50:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44 AM	10/20/2017
1710K43-002A	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 9:25:00 AM	10/23/2017
1710K43-002A	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00 PM	10/24/2017
1710K43-002B	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	Total Metals by ICP/MS		10/23/2017 6:48:00 PM	10/29/2017
1710K43-002C	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	GC Analysis of Gaseous Samples		10/23/2017 1:30:30 PM	10/24/2017
1710K43-002D	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	Alkalinity by SM2320B			10/25/2017
1710K43-002E	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710K43-002E	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	Total Organic Carbon (TOC)			10/23/2017
1710K43-002F	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	Phosphorus, ortho			10/20/2017
1710K43-002F	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	ION SCAN			10/20/2017
1710K43-002G	GW-013926-101917-DJB-104	10/19/2017 10:45:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44 AM	10/20/2017
1710K43-003A	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 9:25:00 AM	10/23/2017
1710K43-003A	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00 PM	10/24/2017
1710K43-003B	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	Total Metals by ICP/MS		10/23/2017 6:48:00 PM	10/29/2017
1710K43-003C	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	GC Analysis of Gaseous Samples		10/23/2017 1:30:30 PM	10/24/2017
1710K43-003D	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	Alkalinity by SM2320B			10/25/2017
1710K43-003E	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710K43-003E	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	Total Organic Carbon (TOC)			10/23/2017
1710K43-003F	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	Phosphorus, ortho			10/20/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710K43

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710K43-003F	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	ION SCAN			10/20/2017
1710K43-003G	GW-013926-101917-DJB-105	10/19/2017 11:45:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44 AM	10/20/2017
1710K43-004A	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 9:25:00 AM	10/23/2017
1710K43-004A	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00 PM	10/24/2017
1710K43-004B	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	Total Metals by ICP/MS		10/23/2017 6:48:00 PM	10/29/2017
1710K43-004C	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	GC Analysis of Gaseous Samples		10/23/2017 1:30:30 PM	10/24/2017
1710K43-004D	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	Alkalinity by SM2320B			10/25/2017
1710K43-004E	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710K43-004E	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	Total Organic Carbon (TOC)			10/23/2017
1710K43-004F	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	Phosphorus, ortho			10/20/2017
1710K43-004F	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	ION SCAN			10/20/2017
1710K43-004G	GW-013926-101917-DJB-106	10/19/2017 2:10:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44 AM	10/20/2017
1710K43-005A	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 9:25:00 AM	10/23/2017
1710K43-005A	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00 PM	10/24/2017
1710K43-005B	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	Total Metals by ICP/MS		10/23/2017 6:48:00 PM	10/29/2017
1710K43-005C	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	GC Analysis of Gaseous Samples		10/23/2017 1:30:30 PM	10/24/2017
1710K43-005D	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	Alkalinity by SM2320B			10/25/2017
1710K43-005E	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710K43-005E	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	Total Organic Carbon (TOC)			10/23/2017
1710K43-005F	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	Phosphorus, ortho			10/20/2017
1710K43-005F	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	ION SCAN			10/20/2017
1710K43-005G	GW-013926-101917-DJB-107	10/19/2017 3:30:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44 AM	10/20/2017
1710K43-006A	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 9:25:00 AM	10/23/2017
1710K43-006A	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00 PM	10/24/2017
1710K43-006B	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	Total Metals by ICP/MS		10/23/2017 6:48:00 PM	10/29/2017
1710K43-006C	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	GC Analysis of Gaseous Samples		10/23/2017 1:30:30 PM	10/24/2017
1710K43-006D	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	Alkalinity by SM2320B			10/25/2017
1710K43-006E	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710K43-006E	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	Total Organic Carbon (TOC)			10/23/2017

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710K43

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710K43-006F	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	Phosphorus, ortho			10/20/2017
1710K43-006F	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	ION SCAN			10/20/2017
1710K43-006G	GW-013926-101917-DJB-108	10/19/2017 4:40:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44 AM	10/21/2017
1710K43-007A	TRIP BLANK	10/20/2017 10:10:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/23/2017 9:25:00 AM	10/23/2017
1710K43-007A	TRIP BLANK	10/20/2017 10:10:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/23/2017 8:52:00 PM	10/24/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250208

Sample ID: **MB-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813430**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.492	0	5.000		110	64.9	131				

Sample ID: **LCS-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813431**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09400	0.020	0.1000		94.0	60	140				
Surr: 4-Bromofluorobenzene	5.581	0	5.000		112	64.9	131				

Sample ID: **LCSD-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813432**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09600	0.020	0.1000		96.0	60	140	0.09400	2.11	20	
Surr: 4-Bromofluorobenzene	5.517	0	5.000		110	64.9	131	5.581	0	0	

Sample ID: **1710I65-001GMS** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813440**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.08454	0.020	0.0995		85.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.167	0	4.973		104	64.9	131				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250314

Sample ID: **MB-250314** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355480**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250314** Analysis Date: **10/29/2017** Seq No: **7826930**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	3.998	5.00									J
Barium	BRL	10.0									
Cadmium	BRL	0.700									
Chromium	0.2636	5.00									J
Copper	0.6464	2.00									J
Iron	BRL	100									
Lead	0.3243	1.00									J
Manganese	BRL	5.00									
Selenium	BRL	5.00									

Sample ID: **LCS-250314** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355480**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250314** Analysis Date: **10/29/2017** Seq No: **7826931**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	118.2	5.00	100.0	3.998	114	80	120				
Barium	102.9	10.0	100.0		103	80	120				
Cadmium	99.08	0.700	100.0		99.1	80	120				
Chromium	106.2	5.00	100.0	0.2636	106	80	120				
Copper	113.1	2.00	100.0	0.6464	112	80	120				
Iron	1091	100	1000		109	80	120				
Lead	104.7	1.00	100.0	0.3243	104	80	120				
Manganese	89.22	5.00	100.0		89.2	80	120				
Selenium	117.9	5.00	100.0		118	80	120				

Sample ID: **1710K43-001BMS** Client ID: **GW-013926-101917-SDL-006** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355480**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250314** Analysis Date: **10/29/2017** Seq No: **7826933**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250314

Sample ID: **1710K43-001BMS** Client ID: **GW-013926-101917-SDL-006** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355480**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250314** Analysis Date: **10/29/2017** Seq No: **7826933**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	114.6	5.00	100.0	4.375	110	75	125				
Barium	213.8	10.0	100.0	109.8	104	75	125				
Cadmium	100.0	0.700	100.0	0.7238	99.3	75	125				
Chromium	100.9	5.00	100.0	0.4147	100	75	125				
Copper	107.4	2.00	100.0	0.8966	106	75	125				
Iron	1070	100	1000		107	75	125				
Lead	104.1	1.00	100.0		104	75	125				
Manganese	2139	5.00	100.0	2034	105	75	125				
Selenium	111.0	5.00	100.0	0.7887	110	75	125				

Sample ID: **1710K43-001BMSD** Client ID: **GW-013926-101917-SDL-006** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355480**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250314** Analysis Date: **10/29/2017** Seq No: **7826934**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	114.7	5.00	100.0	4.375	110	75	125	114.6	0.101	20	
Barium	211.0	10.0	100.0	109.8	101	75	125	213.8	1.34	20	
Cadmium	98.13	0.700	100.0	0.7238	97.4	75	125	100.0	1.92	20	
Chromium	100.8	5.00	100.0	0.4147	100	75	125	100.9	0.033	20	
Copper	107.7	2.00	100.0	0.8966	107	75	125	107.4	0.319	20	
Iron	1069	100	1000		107	75	125	1070	0.064	20	
Lead	102.3	1.00	100.0		102	75	125	104.1	1.76	20	
Manganese	2081	5.00	100.0	2034	47.3	75	125	2139	2.73	20	S
Selenium	114.4	5.00	100.0	0.7887	114	75	125	111.0	2.97	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250323

Sample ID: **MB-250323** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819382**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9.0									
Ethylene	BRL	7.0									
Methane	BRL	4.0									

Sample ID: **LCS-250323** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819383**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	120.2	9.0	200.0		60.1	43.9	115				
Ethylene	81.09	7.0	200.0		40.5	29.6	115				
Methane	135.4	4.0	200.0		67.7	49.2	115				

Sample ID: **LCSD-250323** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819384**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	123.2	9.0	200.0		61.6	43.9	115	120.2	2.46	20	
Ethylene	83.12	7.0	200.0		41.6	29.6	115	81.09	2.47	20	
Methane	138.7	4.0	200.0		69.4	49.2	115	135.4	2.41	20	

Sample ID: **1710I63-001BMS** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819391**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	109.1	9.0	200.0		54.5	36.3	115				
Ethylene	72.56	7.0	200.0		36.3	27	115				
Methane	116.2	4.0	200.0		58.1	40.5	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250323

Sample ID: **1710I63-001BMSD** Client ID:
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175**
Units: **ug/L** Prep Date: **10/23/2017** Run No: **355184**
BatchID: **250323** Analysis Date: **10/23/2017** Seq No: **7819392**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	118.1	9.0	200.0		59.0	36.3	115	109.1	7.95	20	
Ethylene	78.38	7.0	200.0		39.2	27	115	72.56	7.71	20	
Methane	125.0	4.0	200.0		62.5	40.5	115	116.2	7.34	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **MB-250336** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814541**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2,4-Trimethylbenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3,5-Trimethylbenzene	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **MB-250336** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814541**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	47.03	0	50.00		94.1	70	130				
Surr: Dibromofluoromethane	51.89	0	50.00		104	70	130				
Surr: Toluene-d8	48.63	0	50.00		97.3	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **LCS-250336** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814563**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.08	1.0	50.00		102	70	130				
1,1,2,2-Tetrachloroethane	45.74	1.0	50.00		91.5	70	130				
1,1,2-Trichloroethane	46.40	1.0	50.00		92.8	70	130				
1,1-Dichloroethane	49.42	1.0	50.00		98.8	70	130				
1,1-Dichloroethene	54.80	2.0	50.00		110	60	140				
1,2,4-Trichlorobenzene	53.66	1.0	50.00		107	70	130				
1,2,4-Trimethylbenzene	51.05	1.0	50.00		102	70	130				
1,2-Dibromo-3-chloropropane	50.02	1.0	50.00		100	70	130				
1,2-Dichlorobenzene	49.62	1.0	50.00		99.2	70	130				
1,2-Dichloroethane	47.78	1.0	50.00		95.6	70	130				
1,2-Dichloropropane	48.60	1.0	50.00		97.2	70	130				
1,3,5-Trimethylbenzene	50.56	1.0	50.00		101	70	130				
1,3-Dichlorobenzene	48.38	1.0	50.00		96.8	70	130				
1,4-Dichlorobenzene	45.09	1.0	50.00		90.2	70	130				
Benzene	49.90	1.0	50.00		99.8	70	130				
Bromodichloromethane	47.17	1.0	50.00		94.3	70	130				
Bromoform	46.54	1.0	50.00		93.1	70	130				
Carbon tetrachloride	52.28	2.0	50.00		105	70	130				
Chlorobenzene	47.77	1.0	50.00		95.5	70	130				
Chloroform	48.58	1.0	50.00		97.2	70	130				
cis-1,2-Dichloroethene	49.15	1.0	50.00		98.3	70	130				
cis-1,3-Dichloropropene	52.55	1.0	50.00		105	70	130				
Dibromochloromethane	47.58	1.0	50.00		95.2	70	130				
Ethylbenzene	49.61	1.0	50.00		99.2	70	130				
Isopropylbenzene	52.39	1.0	50.00		105	70	130				
Methylene chloride	49.59	5.0	50.00		99.2	70	130				
Styrene	56.24	1.0	50.00		112	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **LCS-250336** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814563**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	49.11	1.0	50.00		98.2	70	130				
Toluene	48.37	1.0	50.00		96.7	70	130				
trans-1,2-Dichloroethene	51.30	2.0	50.00		103	70	130				
trans-1,3-Dichloropropene	54.05	2.0	50.00		108	70	130				
Trichloroethene	50.15	1.0	50.00		100	70	130				
Vinyl chloride	52.11	1.0	50.00		104	70	130				
Xylenes, Total	153.5	1.0	150.0		102	70	130				
Surr: 4-Bromofluorobenzene	51.60	0	50.00		103	70	130				
Surr: Dibromofluoromethane	49.13	0	50.00		98.3	70	130				
Surr: Toluene-d8	48.43	0	50.00		96.9	70	130				

Sample ID: **1710K43-004AMS** Client ID: **GW-013926-101917-DJB-106** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814576**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	460.0	10	500.0		92.0	72.2	142				
1,1,2,2-Tetrachloroethane	401.0	10	500.0		80.2	69.5	127				
1,1,2-Trichloroethane	417.2	10	500.0		83.4	75.4	127				
1,1-Dichloroethane	446.4	10	500.0		89.3	64.4	128				
1,1-Dichloroethene	522.1	20	500.0		104	64.3	149				
1,2,4-Trichlorobenzene	447.7	10	500.0		89.5	62.3	123				
1,2,4-Trimethylbenzene	457.1	10	500.0	4.500	90.5	70.3	128				
1,2-Dibromo-3-chloropropane	419.0	10	500.0		83.8	58.9	131				
1,2-Dichlorobenzene	447.5	10	500.0		89.5	66.8	125				
1,2-Dichloroethane	433.7	10	500.0		86.7	71.9	139				
1,2-Dichloropropane	421.4	10	500.0		84.3	73.2	126				
1,3,5-Trimethylbenzene	441.5	10	500.0		88.3	70	129				
1,3-Dichlorobenzene	429.2	10	500.0		85.8	69.7	123				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **1710K43-004AMS** Client ID: **GW-013926-101917-DJB-106** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814576**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	420.4	10	500.0		84.1	66.8	126				
Benzene	451.1	10	500.0		90.2	71.6	132				
Bromodichloromethane	410.0	10	500.0		82.0	71.8	133				
Bromoform	415.4	10	500.0		83.1	58.2	132				
Carbon tetrachloride	479.4	20	500.0		95.9	61.8	142				
Chlorobenzene	454.1	10	500.0		90.8	73.1	126				
Chloroform	444.7	10	500.0		88.9	70.1	133				
cis-1,2-Dichloroethene	450.4	10	500.0		90.1	71.4	136				
cis-1,3-Dichloropropene	463.8	10	500.0		92.8	65.9	128				
Dibromochloromethane	437.7	10	500.0		87.5	63.8	134				
Ethylbenzene	467.0	10	500.0	2.600	92.9	81.2	130				
Isopropylbenzene	453.1	10	500.0		90.6	66	127				
Methylene chloride	458.1	50	500.0		91.6	68.4	135				
Styrene	544.7	10	500.0		109	70.1	128				
Tetrachloroethene	446.8	10	500.0		89.4	69.1	133				
Toluene	437.7	10	500.0		87.5	72.5	135				
trans-1,2-Dichloroethene	469.9	20	500.0		94.0	62.4	132				
trans-1,3-Dichloropropene	456.6	20	500.0		91.3	69.7	137				
Trichloroethene	436.4	10	500.0		87.3	70.2	132				
Vinyl chloride	477.6	10	500.0	4.800	94.6	55.9	136				
Xylenes, Total	1416	10	1500		94.4	76.1	139				
Surr: 4-Bromofluorobenzene	513.9	0	500.0		103	70	130				
Surr: Dibromofluoromethane	488.8	0	500.0		97.8	70	130				
Surr: Toluene-d8	475.9	0	500.0		95.2	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **1710K43-004AMSD** Client ID: **GW-013926-101917-DJB-106** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814577**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	465.3	10	500.0		93.1	72.2	142	460.0	1.15	20	
1,1,2,2-Tetrachloroethane	403.2	10	500.0		80.6	69.5	127	401.0	0.547	20	
1,1,2-Trichloroethane	420.1	10	500.0		84.0	75.4	127	417.2	0.693	20	
1,1-Dichloroethane	451.7	10	500.0		90.3	64.4	128	446.4	1.18	20	
1,1-Dichloroethene	514.8	20	500.0		103	64.3	149	522.1	1.41	30.8	
1,2,4-Trichlorobenzene	467.4	10	500.0		93.5	62.3	123	447.7	4.31	36.8	
1,2,4-Trimethylbenzene	460.9	10	500.0	4.500	91.3	70.3	128	457.1	0.828	20	
1,2-Dibromo-3-chloropropane	430.7	10	500.0		86.1	58.9	131	419.0	2.75	20	
1,2-Dichlorobenzene	454.9	10	500.0		91.0	66.8	125	447.5	1.64	20	
1,2-Dichloroethane	442.3	10	500.0		88.5	71.9	139	433.7	1.96	20	
1,2-Dichloropropane	427.1	10	500.0		85.4	73.2	126	421.4	1.34	20	
1,3,5-Trimethylbenzene	443.3	10	500.0		88.7	70	129	441.5	0.407	20	
1,3-Dichlorobenzene	436.0	10	500.0		87.2	69.7	123	429.2	1.57	20	
1,4-Dichlorobenzene	426.6	10	500.0		85.3	66.8	126	420.4	1.46	20	
Benzene	446.3	10	500.0		89.3	71.6	132	451.1	1.07	20.7	
Bromodichloromethane	417.8	10	500.0		83.6	71.8	133	410.0	1.88	20	
Bromoform	413.0	10	500.0		82.6	58.2	132	415.4	0.579	20	
Carbon tetrachloride	485.6	20	500.0		97.1	61.8	142	479.4	1.28	20	
Chlorobenzene	435.1	10	500.0		87.0	73.1	126	454.1	4.27	26.6	
Chloroform	445.1	10	500.0		89.0	70.1	133	444.7	0.090	20	
cis-1,2-Dichloroethene	455.9	10	500.0		91.2	71.4	136	450.4	1.21	20	
cis-1,3-Dichloropropene	467.3	10	500.0		93.5	65.9	128	463.8	0.752	20	
Dibromochloromethane	424.1	10	500.0		84.8	63.8	134	437.7	3.16	20	
Ethylbenzene	449.8	10	500.0	2.600	89.4	81.2	130	467.0	3.75	20	
Isopropylbenzene	452.8	10	500.0		90.6	66	127	453.1	0.066	20	
Methylene chloride	461.8	50	500.0		92.4	68.4	135	458.1	0.804	20	
Styrene	525.4	10	500.0		105	70.1	128	544.7	3.61	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **1710K43-004AMSD** Client ID: **GW-013926-101917-DJB-106** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814577**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Tetrachloroethene	423.3	10	500.0		84.7	69.1	133	446.8	5.40	20	
Toluene	437.6	10	500.0		87.5	72.5	135	437.7	0.023	23.2	
trans-1,2-Dichloroethene	483.3	20	500.0		96.7	62.4	132	469.9	2.81	20	
trans-1,3-Dichloropropene	460.8	20	500.0		92.2	69.7	137	456.6	0.916	20	
Trichloroethene	435.5	10	500.0		87.1	70.2	132	436.4	0.206	27.7	
Vinyl chloride	489.6	10	500.0	4.800	97.0	55.9	136	477.6	2.48	20	
Xylenes, Total	1389	10	1500		92.6	76.1	139	1416	1.90	20	
Surr: 4-Bromofluorobenzene	512.3	0	500.0		102	70	130	513.9	0	0	
Surr: Dibromofluoromethane	499.1	0	500.0		99.8	70	130	488.8	0	0	
Surr: Toluene-d8	479.1	0	500.0		95.8	70	130	475.9	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250368

Sample ID: **MB-250368** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355059**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/23/2017** Seq No: **7815810**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	47.93	0	50.00		95.9	84.6	119				
Surr: Dibromofluoromethane	52.36	0	50.00		105	80	119				
Surr: Toluene-d8	49.81	0	50.00		99.6	85	115				

Sample ID: **LCS-250368** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355059**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/23/2017** Seq No: **7815809**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	9.380	5.0	10.00		93.8	68.1	133				
Surr: 4-Bromofluorobenzene	48.03	0	50.00		96.1	84.6	119				
Surr: Dibromofluoromethane	52.82	0	50.00		106	80	119				
Surr: Toluene-d8	49.98	0	50.00		100.0	85	115				

Sample ID: **1710I63-001AMS** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355162**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/24/2017** Seq No: **7818673**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	17.76	5.0	10.00	7.860	99.0	65.9	135				
Surr: 4-Bromofluorobenzene	47.14	0	50.00		94.3	84.6	119				
Surr: Dibromofluoromethane	52.19	0	50.00		104	80	119				
Surr: Toluene-d8	49.96	0	50.00		99.9	85	115				

Sample ID: **1710I63-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355162**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/24/2017** Seq No: **7818674**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	16.63	5.0	10.00	7.860	87.7	65.9	135	17.76	6.57	31.5	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: 250368

Sample ID: **1710I63-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355162**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250368** Analysis Date: **10/24/2017** Seq No: **7818674**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	46.77	0	50.00		93.5	84.6	119	47.14	0	0	
Surr: Dibromofluoromethane	52.13	0	50.00		104	80	119	52.19	0	0	
Surr: Toluene-d8	49.53	0	50.00		99.1	85	115	49.96	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: R354944

Sample ID: **MB-R354944** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813136**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R354944** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813137**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09670	0.0100	0.1000		96.7	90	110				

Sample ID: **1710J27-010EMS** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813154**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1040	0.0100	0.1000	0.004550	99.4	90	110				

Sample ID: **1710J27-015BMS** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813156**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09970	0.0100	0.1000	0.004350	95.4	90	110				

Sample ID: **1710J27-010EMSD** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813155**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1000	0.0100	0.1000	0.004550	95.4	90	110	0.1040	3.92	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: R354991

Sample ID: **MB-R354991** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815238**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R354991** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815236**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.46	1.00	25.00		102	90	110				

Sample ID: **1710I63-002FMS** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815242**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.52	1.00	25.00		102	80	120				

Sample ID: **1710I63-002FMSD** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815243**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.52	1.00	25.00		102	80	120	25.52	0	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: **R355008**

Sample ID: **MB-R355008** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814481**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R355008** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814480**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	4.739	1.0	5.000		94.8	90	110				
Nitrate	5.054	0.25	5.000		101	90	110				
Sulfate	24.22	1.0	25.00		96.9	90	110				

Sample ID: **1710I84-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814484**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	101.6	10	50.00	49.61	104	90	110				
Nitrate	68.75	2.5	50.00	18.05	101	90	110				
Sulfate	275.0	10	250.0	31.33	97.5	90	110				

Sample ID: **1710I85-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814488**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	89.24	10	50.00	38.55	101	90	110				
Nitrate	63.17	2.5	50.00	8.975	108	90	110				
Sulfate	278.1	10	250.0	29.30	99.5	90	110				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: R355008

Sample ID: **1710I84-002BMSD** Client ID:
SampleType: **MSD** TestCode: **ION SCAN SW9056A**
Units: **mg/L** Prep Date:
BatchID: **R355008** Analysis Date: **10/20/2017**
Run No: **355008**
Seq No: **7814485**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	99.63	10	50.00	49.61	100	90	110	101.6	2.00	20	
Nitrate	68.60	2.5	50.00	18.05	101	90	110	68.75	0.214	20	
Sulfate	271.5	10	250.0	31.33	96.1	90	110	275.0	1.27	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: R355046

Sample ID: **MB-R355046** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816044**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-355046** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816045**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9360	0.020	1.000		93.6	90	110				

Sample ID: **1710K43-001EMS** Client ID: **GW-013926-101917-SDL-006** Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816058**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9880	0.020	1.000		98.8	90	110				

Sample ID: **1710L27-001EMS** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816069**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9780	0.020	1.000		97.8	90	110				

Sample ID: **1710K43-001EMSD** Client ID: **GW-013926-101917-SDL-006** Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816059**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9770	0.020	1.000		97.7	90	110	0.9880	1.12	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K43

ANALYTICAL QC SUMMARY REPORT

BatchID: R355213

Sample ID: **MB-R355213** Client ID: Units: **mg/L** Prep Date: Run No: **355213**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R355213** Analysis Date: **10/25/2017** Seq No: **7819959**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R355213** Client ID: Units: **mg/L** Prep Date: Run No: **355213**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R355213** Analysis Date: **10/25/2017** Seq No: **7819960**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	121.0	3.00	125.0		96.8	75	125				

Sample ID: **1710B46-001ADUP** Client ID: Units: **mg/L** Prep Date: Run No: **355213**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R355213** Analysis Date: **10/25/2017** Seq No: **7820731**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	24.00	3.00						0	0	30	

Sample ID: **1710I63-001EDUP** Client ID: Units: **mg/L** Prep Date: Run No: **355213**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R355213** Analysis Date: **10/25/2017** Seq No: **7819967**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00						0	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 31, 2017

Terefe Mazengia
GHD Services, Inc.

3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1710K44

Analytical Environmental Services, Inc. received 1 samples on 10/20/2017 10:10:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/18.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1710K44

Date: 10/19/17 Page _____ of _____

COMPANY: GHD
ADDRESS: 3075 Breckinridge Blvd Duluth, GA 30096 Suite 470
PHONE: 678-280-2150
FAX:
SAMPLED BY: Stephanie Linto
SIGNATURE:

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL VOCs	1,4-Dioxane	TAL Metals	Sulfate	Nitrate	Dissolved Inorganic Nitrogen	Ammonia	Orthophosphate	EDB					REMARKS	No # of Containers
							PRESERVATION (See codes)														
1	GW-013926-101717-DL-005	10/17/17	10:30	✓		GW	✓	✓	✓	✓	✓	✓	✓	✓	✓					See SSOW #1726 25.00	11
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	10/19/17 17:00	1:	10/20/17 10:10
2:		2:	5.6°C
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER _____

PROJECT INFORMATION
PROJECT NAME: Aqua-Tech
PROJECT #: 013926
SITE ADDRESS: Greer, SC
SEND REPORT TO:
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #: _____ PO#: _____

RECEIPT
Total # of Containers

Turnaround Time Request
- ✓ Standard 5 Business Days
- ○ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1710K44

Case Narrative

Sample Receiving Nonconformance:

1710K44 listed on the Chain of Custody as collected 10:30 was labeled 10:10. Samples were logged in using the information present on the bottle label to ensure that the hold time is not missed.

Analytical Environmental Services, Inc **Date:** 30-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-SDL-005
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:10:00 AM
Lab ID:	1710K44-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250336	1	10/23/2017 17:00	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 17:00	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250336	1	10/23/2017 17:00	NP
2-Butanone	BRL		2.5	10	ug/L	250336	1	10/23/2017 17:00	NP
2-Hexanone	BRL		0.67	10	ug/L	250336	1	10/23/2017 17:00	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250336	1	10/23/2017 17:00	NP
Acetone	BRL		3.6	20	ug/L	250336	1	10/23/2017 17:00	NP
Benzene	BRL		0.37	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Bromoform	BRL		0.19	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Bromomethane	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250336	1	10/23/2017 17:00	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250336	1	10/23/2017 17:00	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Chloroethane	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Chloroform	BRL		0.20	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Chloromethane	BRL		0.21	1.0	ug/L	250336	1	10/23/2017 17:00	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	250336	1	10/23/2017 17:00	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250336	1	10/23/2017 17:00	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Freon-113	BRL		0.32	5.0	ug/L	250336	1	10/23/2017 17:00	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250336	1	10/23/2017 17:00	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250336	1	10/23/2017 17:00	NP
Methylene chloride	BRL		1.2	5.0	ug/L	250336	1	10/23/2017 17:00	NP
Styrene	BRL		0.15	1.0	ug/L	250336	1	10/23/2017 17:00	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 30-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-SDL-005
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:10:00 AM
Lab ID:	1710K44-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	79		0.46	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Toluene	BRL		0.39	1.0	ug/L	250336	1	10/23/2017 17:00	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250336	1	10/23/2017 17:00	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250336	1	10/23/2017 17:00	NP
Trichloroethene	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250336	1	10/23/2017 17:00	NP
Surr: 4-Bromofluorobenzene	97.8		0	70-130	%REC	250336	1	10/23/2017 17:00	NP
Surr: Dibromofluoromethane	105		0	70-130	%REC	250336	1	10/23/2017 17:00	NP
Surr: Toluene-d8	97.6		0	70-130	%REC	250336	1	10/23/2017 17:00	NP
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Aluminum	90.4		4.31	50.0	ug/L	250306	1	10/27/2017 00:15	TA
Antimony	BRL		0.197	5.00	ug/L	250306	1	10/27/2017 00:15	TA
Arsenic	0.394	J	0.156	5.00	ug/L	250306	1	10/27/2017 00:15	TA
Barium	234		0.185	10.0	ug/L	250306	1	10/27/2017 00:15	TA
Beryllium	0.323	J	0.147	1.00	ug/L	250306	1	10/27/2017 00:15	TA
Cadmium	0.772		0.148	0.700	ug/L	250306	1	10/27/2017 00:15	TA
Calcium	778		14.4	100	ug/L	250306	1	10/27/2017 00:15	TA
Chromium	1.20	J	0.193	5.00	ug/L	250306	1	10/27/2017 00:15	TA
Cobalt	3.34	J	0.188	5.00	ug/L	250306	1	10/27/2017 00:15	TA
Copper	0.760	J	0.126	2.00	ug/L	250306	1	10/27/2017 00:15	TA
Iron	44.4	J	6.47	100	ug/L	250306	1	10/27/2017 00:15	TA
Lead	BRL		0.215	1.00	ug/L	250306	1	10/27/2017 00:15	TA
Magnesium	3240		5.27	100	ug/L	250306	1	10/27/2017 00:15	TA
Manganese	9.55		0.344	5.00	ug/L	250306	1	10/27/2017 00:15	TA
Nickel	0.858	J	0.210	5.00	ug/L	250306	1	10/27/2017 00:15	TA
Potassium	3220		13.2	100	ug/L	250306	1	10/27/2017 00:15	TA
Selenium	BRL		0.264	5.00	ug/L	250306	1	10/27/2017 00:15	TA
Silver	BRL		0.0185	1.00	ug/L	250306	1	10/27/2017 00:15	TA
Sodium	7790		6.39	500	ug/L	250306	1	10/27/2017 00:15	TA
Thallium	BRL		0.192	1.00	ug/L	250306	1	10/27/2017 00:15	TA
Vanadium	3.15	J	0.170	5.00	ug/L	250306	1	10/27/2017 00:15	TA
Zinc	6.57	J	0.580	10.0	ug/L	250306	1	10/27/2017 00:15	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0193		0.00410	0.0100	mg/L	R354944	1	10/20/2017 18:29	AM

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 30-Oct-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-101917-SDL-005
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/19/2017 10:10:00 AM
Lab ID:	1710K44-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R355046	1	10/23/2017 15:09	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250208	1	10/21/2017 00:30	UH
Surr: 4-Bromofluorobenzene	101		0	64.9-131	%REC	250208	1	10/21/2017 00:30	UH
Mercury, Total SW7470A					**(SW7470A)**				
Mercury	BRL		0.00006	0.00020	mg/L	250442	1	10/26/2017 01:12	AS
ION SCAN SW9056A									
Nitrate	5.1		0.055	0.25	mg/L	R355008	1	10/20/2017 17:58	VL
Sulfate	2.1		0.12	1.0	mg/L	R355008	1	10/20/2017 17:58	VL
Dissolved Metals by ICP/MS SW6020B					**(SW3005A)**				
Iron	BRL		6.47	100	ug/L	250219	1	10/25/2017 02:53	JR
Manganese	9.23		0.344	5.00	ug/L	250219	1	10/26/2017 21:30	JR
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	BRL		0.47	2.0	ug/L	250421	1	10/24/2017 19:16	NP
Surr: 4-Bromofluorobenzene	92.6		0	84.6-119	%REC	250421	1	10/24/2017 19:16	NP
Surr: Dibromofluoromethane	103		0	80-119	%REC	250421	1	10/24/2017 19:16	NP
Surr: Toluene-d8	98.1		0	85-115	%REC	250421	1	10/24/2017 19:16	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Clear Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **GHD Services, Inc.** AES Work Order Number: **1710K44**

2. Carrier: FedEx ☒ UPS ☐ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	○	●	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 5.6 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). ALJ 10/20/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	○	●	○	listed on COC ☐ not listed on COC ☒	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). ALJ 10/20/17

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). ALJ 10/20/17

Analytical Environmental Services, Inc

Date: 31-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710K44

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710K44-001A	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 9:25:00 AM	10/23/2017
1710K44-001A	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/24/2017 5:33:00 PM	10/24/2017
1710K44-001B	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	Total Metals by ICP/MS		10/23/2017 5:42:00 PM	10/27/2017
1710K44-001B	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	TOTAL MERCURY		10/25/2017 9:20:00 PM	10/26/2017
1710K44-001C	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	ION SCAN			10/20/2017
1710K44-001D	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	Dissolved Metals by ICP/MS		10/24/2017 11:11:00 AM	10/25/2017
1710K44-001D	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	Dissolved Metals by ICP/MS		10/24/2017 11:11:00 AM	10/26/2017
1710K44-001E	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710K44-001F	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	Phosphorus, ortho			10/20/2017
1710K44-001G	GW-013926-101917-SDL-005	10/19/2017 10:10:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/20/2017 11:34:44 AM	10/21/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250208

Sample ID: **MB-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813430**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.492	0	5.000		110	64.9	131				

Sample ID: **LCS-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813431**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09400	0.020	0.1000		94.0	60	140				
Surr: 4-Bromofluorobenzene	5.581	0	5.000		112	64.9	131				

Sample ID: **LCSD-250208** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813432**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09600	0.020	0.1000		96.0	60	140	0.09400	2.11	20	
Surr: 4-Bromofluorobenzene	5.517	0	5.000		110	64.9	131	5.581	0	0	

Sample ID: **1710I65-001GMS** Client ID: Units: **ug/L** Prep Date: **10/20/2017** Run No: **354962**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250208** Analysis Date: **10/20/2017** Seq No: **7813440**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.08454	0.020	0.0995		85.0	65.6	136				
Surr: 4-Bromofluorobenzene	5.167	0	4.973		104	64.9	131				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250219

Sample ID: **MB-250219** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355182**
SampleType: **MBLK** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **250219** Analysis Date: **10/26/2017** Seq No: **7822891**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	BRL	100									
Manganese	BRL	5.00									

Sample ID: **LCS-250219** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355182**
SampleType: **LCS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **250219** Analysis Date: **10/25/2017** Seq No: **7819363**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	976.8	100	1000		97.7	80	120				
Manganese	93.37	5.00	100.0		93.4	80	120				

Sample ID: **1710I65-001DMS** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355182**
SampleType: **MS** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **250219** Analysis Date: **10/25/2017** Seq No: **7819366**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	933.4	100	1000		93.3	75	125				
Manganese	90.96	5.00	100.0	2.509	88.5	75	125				

Sample ID: **1710I65-001DMSD** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355182**
SampleType: **MSD** TestCode: **Dissolved Metals by ICP/MS SW6020B** BatchID: **250219** Analysis Date: **10/25/2017** Seq No: **7819369**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Iron	913.9	100	1000		91.4	75	125	933.4	2.11	20	
Manganese	91.24	5.00	100.0	2.509	88.7	75	125	90.96	0.305	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250306

Sample ID: **MB-250306** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355465**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250306** Analysis Date: **10/26/2017** Seq No: **7825952**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	5.987	50.0									J
Antimony	BRL	5.00									
Arsenic	0.1980	5.00									J
Barium	BRL	10.0									
Beryllium	BRL	1.00									
Cadmium	BRL	0.700									
Calcium	BRL	100									
Chromium	0.3613	5.00									J
Cobalt	BRL	5.00									
Copper	0.8382	2.00									J
Iron	BRL	100									
Lead	BRL	1.00									
Magnesium	BRL	100									
Manganese	BRL	5.00									
Nickel	0.3868	5.00									J
Potassium	21.52	100									J
Selenium	BRL	5.00									
Silver	BRL	1.00									
Sodium	373.9	500									J
Thallium	BRL	1.00									
Vanadium	1.989	5.00									J
Zinc	BRL	10.0									

Sample ID: **LCS-250306** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355465**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250306** Analysis Date: **10/26/2017** Seq No: **7825953**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	920.4	50.0	1000	5.987	91.4	80	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250306

Sample ID: **LCS-250306** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355465**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250306** Analysis Date: **10/26/2017** Seq No: **7825953**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	97.56	5.00	100.0		97.6	80	120				
Arsenic	97.26	5.00	100.0	0.1980	97.1	80	120				
Barium	95.60	10.0	100.0		95.6	80	120				
Beryllium	90.30	1.00	100.0		90.3	80	120				
Cadmium	101.4	0.700	100.0		101	80	120				
Calcium	925.2	100	1000		92.5	80	120				
Chromium	100.1	5.00	100.0	0.3613	99.8	80	120				
Cobalt	100.3	5.00	100.0		100	80	120				
Copper	102.7	2.00	100.0	0.8382	102	80	120				
Iron	1014	100	1000		101	80	120				
Lead	98.52	1.00	100.0		98.5	80	120				
Magnesium	969.5	100	1000		97.0	80	120				
Manganese	94.52	5.00	100.0		94.5	80	120				
Nickel	101.3	5.00	100.0	0.3868	101	80	120				
Potassium	971.6	100	1000	21.52	95.0	80	120				
Selenium	93.17	5.00	100.0		93.2	80	120				
Silver	10.14	1.00	10.00		101	80	120				
Sodium	1301	500	1000	373.9	92.7	80	120				
Vanadium	99.78	5.00	100.0	1.989	97.8	80	120				
Zinc	96.62	10.0	100.0		96.6	80	120				

Sample ID: **LCS-250306** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355465**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250306** Analysis Date: **10/29/2017** Seq No: **7827786**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Thallium	80.65	1.00	100.0		80.6	80	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250306

Sample ID: **1710K24-001EMS** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355465**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250306** Analysis Date: **10/26/2017** Seq No: **7825957**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	951.3	50.0	1000	45.69	90.6	75	125				
Antimony	98.63	5.00	100.0	0.7422	97.9	75	125				
Arsenic	96.78	5.00	100.0	0.4016	96.4	75	125				
Barium	175.2	10.0	100.0	74.45	101	75	125				
Beryllium	90.67	1.00	100.0		90.7	75	125				
Cadmium	100.2	0.700	100.0		100	75	125				
Calcium	12800	100	1000	11490	131	75	125				S
Chromium	99.64	5.00	100.0	0.5807	99.1	75	125				
Cobalt	105.7	5.00	100.0	7.488	98.2	75	125				
Copper	100.3	2.00	100.0	0.8550	99.4	75	125				
Iron	1090	100	1000	102.1	98.8	75	125				
Lead	99.02	1.00	100.0		99.0	75	125				
Magnesium	6744	100	1000	5607	114	75	125				
Manganese	378.6	5.00	100.0	274.0	105	75	125				
Nickel	100.6	5.00	100.0	1.906	98.7	75	125				
Potassium	2662	100	1000	1684	97.8	75	125				
Selenium	91.87	5.00	100.0		91.9	75	125				
Silver	10.04	1.00	10.00		100	75	125				
Sodium	11090	500	1000	9918	117	75	125				
Vanadium	99.28	5.00	100.0	2.285	97.0	75	125				
Zinc	101.2	10.0	100.0	7.364	93.8	75	125				

Sample ID: **1710K24-001EMS** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355465**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250306** Analysis Date: **10/29/2017** Seq No: **7827787**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Thallium	86.28	1.00	100.0	1.953	84.3	75	125				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250306

Sample ID: **1710K24-001EMSD** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355465**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250306** Analysis Date: **10/26/2017** Seq No: **7825958**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aluminum	917.3	50.0	1000	45.69	87.2	75	125	951.3	3.63	20	
Antimony	97.08	5.00	100.0	0.7422	96.3	75	125	98.63	1.58	20	
Arsenic	94.17	5.00	100.0	0.4016	93.8	75	125	96.78	2.74	20	
Barium	171.8	10.0	100.0	74.45	97.3	75	125	175.2	1.96	20	
Beryllium	92.09	1.00	100.0		92.1	75	125	90.67	1.55	20	
Cadmium	98.67	0.700	100.0		98.7	75	125	100.2	1.53	20	
Calcium	12260	100	1000	11490	76.2	75	125	12800	4.37	20	
Chromium	96.42	5.00	100.0	0.5807	95.8	75	125	99.64	3.29	20	
Cobalt	102.8	5.00	100.0	7.488	95.3	75	125	105.7	2.78	20	
Copper	96.94	2.00	100.0	0.8550	96.1	75	125	100.3	3.36	20	
Iron	1078	100	1000	102.1	97.6	75	125	1090	1.07	20	
Lead	98.17	1.00	100.0		98.2	75	125	99.02	0.858	20	
Magnesium	6404	100	1000	5607	79.7	75	125	6744	5.18	20	
Manganese	361.9	5.00	100.0	274.0	87.9	75	125	378.6	4.53	20	
Nickel	97.33	5.00	100.0	1.906	95.4	75	125	100.6	3.34	20	
Potassium	2548	100	1000	1684	86.4	75	125	2662	4.36	20	
Selenium	89.73	5.00	100.0		89.7	75	125	91.87	2.36	20	
Silver	9.955	1.00	10.00		99.6	75	125	10.04	0.802	20	
Sodium	10640	500	1000	9918	72.2	75	125	11090	4.16	20	S
Vanadium	97.00	5.00	100.0	2.285	94.7	75	125	99.28	2.33	20	
Zinc	99.80	10.0	100.0	7.364	92.4	75	125	101.2	1.40	20	

Sample ID: **1710K24-001EMSD** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355465**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250306** Analysis Date: **10/29/2017** Seq No: **7827788**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Thallium	87.38	1.00	100.0	1.953	85.4	75	125	86.28	1.27	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **MB-250336** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814541**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **MB-250336** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814541**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	47.03	0	50.00		94.1	70	130				
Surr: Dibromofluoromethane	51.89	0	50.00		104	70	130				
Surr: Toluene-d8	48.63	0	50.00		97.3	70	130				

Sample ID: **LCS-250336** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814563**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>.	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **LCS-250336** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814563**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	51.08	1.0	50.00		102	70	130				
1,1,2,2-Tetrachloroethane	45.74	1.0	50.00		91.5	70	130				
1,1,2-Trichloroethane	46.40	1.0	50.00		92.8	70	130				
1,1-Dichloroethane	49.42	1.0	50.00		98.8	70	130				
1,1-Dichloroethene	54.80	2.0	50.00		110	60	140				
1,2,4-Trichlorobenzene	53.66	1.0	50.00		107	70	130				
1,2-Dibromo-3-chloropropane	50.02	1.0	50.00		100	70	130				
1,2-Dichlorobenzene	49.62	1.0	50.00		99.2	70	130				
1,2-Dichloroethane	47.78	1.0	50.00		95.6	70	130				
1,2-Dichloropropane	48.60	1.0	50.00		97.2	70	130				
1,3-Dichlorobenzene	48.38	1.0	50.00		96.8	70	130				
1,4-Dichlorobenzene	45.09	1.0	50.00		90.2	70	130				
Benzene	49.90	1.0	50.00		99.8	70	130				
Bromodichloromethane	47.17	1.0	50.00		94.3	70	130				
Bromoform	46.54	1.0	50.00		93.1	70	130				
Carbon tetrachloride	52.28	2.0	50.00		105	70	130				
Chlorobenzene	47.77	1.0	50.00		95.5	70	130				
Chloroform	48.58	1.0	50.00		97.2	70	130				
cis-1,2-Dichloroethene	49.15	1.0	50.00		98.3	70	130				
cis-1,3-Dichloropropene	52.55	1.0	50.00		105	70	130				
Dibromochloromethane	47.58	1.0	50.00		95.2	70	130				
Ethylbenzene	49.61	1.0	50.00		99.2	70	130				
Isopropylbenzene	52.39	1.0	50.00		105	70	130				
Methylene chloride	49.59	5.0	50.00		99.2	70	130				
Styrene	56.24	1.0	50.00		112	70	130				
Tetrachloroethene	49.11	1.0	50.00		98.2	70	130				
Toluene	48.37	1.0	50.00		96.7	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **LCS-250336** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814563**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	51.30	2.0	50.00		103	70	130				
trans-1,3-Dichloropropene	54.05	2.0	50.00		108	70	130				
Trichloroethene	50.15	1.0	50.00		100	70	130				
Vinyl chloride	52.11	1.0	50.00		104	70	130				
Xylenes, Total	153.5	1.0	150.0		102	70	130				
Surr: 4-Bromofluorobenzene	51.60	0	50.00		103	70	130				
Surr: Dibromofluoromethane	49.13	0	50.00		98.3	70	130				
Surr: Toluene-d8	48.43	0	50.00		96.9	70	130				

Sample ID: **1710K43-004AMS** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814576**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	460.0	10	500.0		92.0	72.2	142				
1,1,2,2-Tetrachloroethane	401.0	10	500.0		80.2	69.5	127				
1,1,2-Trichloroethane	417.2	10	500.0		83.4	75.4	127				
1,1-Dichloroethane	446.4	10	500.0		89.3	64.4	128				
1,1-Dichloroethene	522.1	20	500.0		104	64.3	149				
1,2,4-Trichlorobenzene	447.7	10	500.0		89.5	62.3	123				
1,2-Dibromo-3-chloropropane	419.0	10	500.0		83.8	58.9	131				
1,2-Dichlorobenzene	447.5	10	500.0		89.5	66.8	125				
1,2-Dichloroethane	433.7	10	500.0		86.7	71.9	139				
1,2-Dichloropropane	421.4	10	500.0		84.3	73.2	126				
1,3-Dichlorobenzene	429.2	10	500.0		85.8	69.7	123				
1,4-Dichlorobenzene	420.4	10	500.0		84.1	66.8	126				
Benzene	451.1	10	500.0		90.2	71.6	132				
Bromodichloromethane	410.0	10	500.0		82.0	71.8	133				
Bromoform	415.4	10	500.0		83.1	58.2	132				

Qualifiers:
> Greater than Result value
< Less than Result value
B Analyte detected in the associated method blank
BRL Below reporting limit
E Estimated (value above quantitation range)
H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit
N Analyte not NELAC certified
R RPD outside limits due to matrix
Rpt Lim Reporting Limit
S Spike Recovery outside limits due to matrix

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **1710K43-004AMS** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814576**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Carbon tetrachloride	479.4	20	500.0		95.9	61.8	142				
Chlorobenzene	454.1	10	500.0		90.8	73.1	126				
Chloroform	444.7	10	500.0		88.9	70.1	133				
cis-1,2-Dichloroethene	450.4	10	500.0		90.1	71.4	136				
cis-1,3-Dichloropropene	463.8	10	500.0		92.8	65.9	128				
Dibromochloromethane	437.7	10	500.0		87.5	63.8	134				
Ethylbenzene	467.0	10	500.0	2.600	92.9	81.2	130				
Isopropylbenzene	453.1	10	500.0		90.6	66	127				
Methylene chloride	458.1	50	500.0		91.6	68.4	135				
Styrene	544.7	10	500.0		109	70.1	128				
Tetrachloroethene	446.8	10	500.0		89.4	69.1	133				
Toluene	437.7	10	500.0		87.5	72.5	135				
trans-1,2-Dichloroethene	469.9	20	500.0		94.0	62.4	132				
trans-1,3-Dichloropropene	456.6	20	500.0		91.3	69.7	137				
Trichloroethene	436.4	10	500.0		87.3	70.2	132				
Vinyl chloride	477.6	10	500.0	4.800	94.6	55.9	136				
Xylenes, Total	1416	10	1500		94.4	76.1	139				
Surr: 4-Bromofluorobenzene	513.9	0	500.0		103	70	130				
Surr: Dibromofluoromethane	488.8	0	500.0		97.8	70	130				
Surr: Toluene-d8	475.9	0	500.0		95.2	70	130				

Sample ID: **1710K43-004AMSD** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814577**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	465.3	10	500.0		93.1	72.2	142	460.0	1.15	20	
1,1,2,2-Tetrachloroethane	403.2	10	500.0		80.6	69.5	127	401.0	0.547	20	
1,1,2-Trichloroethane	420.1	10	500.0		84.0	75.4	127	417.2	0.693	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **1710K43-004AMSD** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814577**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethane	451.7	10	500.0		90.3	64.4	128	446.4	1.18	20	
1,1-Dichloroethene	514.8	20	500.0		103	64.3	149	522.1	1.41	30.8	
1,2,4-Trichlorobenzene	467.4	10	500.0		93.5	62.3	123	447.7	4.31	36.8	
1,2-Dibromo-3-chloropropane	430.7	10	500.0		86.1	58.9	131	419.0	2.75	20	
1,2-Dichlorobenzene	454.9	10	500.0		91.0	66.8	125	447.5	1.64	20	
1,2-Dichloroethane	442.3	10	500.0		88.5	71.9	139	433.7	1.96	20	
1,2-Dichloropropane	427.1	10	500.0		85.4	73.2	126	421.4	1.34	20	
1,3-Dichlorobenzene	436.0	10	500.0		87.2	69.7	123	429.2	1.57	20	
1,4-Dichlorobenzene	426.6	10	500.0		85.3	66.8	126	420.4	1.46	20	
Benzene	446.3	10	500.0		89.3	71.6	132	451.1	1.07	20.7	
Bromodichloromethane	417.8	10	500.0		83.6	71.8	133	410.0	1.88	20	
Bromoform	413.0	10	500.0		82.6	58.2	132	415.4	0.579	20	
Carbon tetrachloride	485.6	20	500.0		97.1	61.8	142	479.4	1.28	20	
Chlorobenzene	435.1	10	500.0		87.0	73.1	126	454.1	4.27	26.6	
Chloroform	445.1	10	500.0		89.0	70.1	133	444.7	0.090	20	
cis-1,2-Dichloroethene	455.9	10	500.0		91.2	71.4	136	450.4	1.21	20	
cis-1,3-Dichloropropene	467.3	10	500.0		93.5	65.9	128	463.8	0.752	20	
Dibromochloromethane	424.1	10	500.0		84.8	63.8	134	437.7	3.16	20	
Ethylbenzene	449.8	10	500.0	2.600	89.4	81.2	130	467.0	3.75	20	
Isopropylbenzene	452.8	10	500.0		90.6	66	127	453.1	0.066	20	
Methylene chloride	461.8	50	500.0		92.4	68.4	135	458.1	0.804	20	
Styrene	525.4	10	500.0		105	70.1	128	544.7	3.61	20	
Tetrachloroethene	423.3	10	500.0		84.7	69.1	133	446.8	5.40	20	
Toluene	437.6	10	500.0		87.5	72.5	135	437.7	0.023	23.2	
trans-1,2-Dichloroethene	483.3	20	500.0		96.7	62.4	132	469.9	2.81	20	
trans-1,3-Dichloropropene	460.8	20	500.0		92.2	69.7	137	456.6	0.916	20	
Trichloroethene	435.5	10	500.0		87.1	70.2	132	436.4	0.206	27.7	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250336

Sample ID: **1710K43-004AMSD** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355009**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250336** Analysis Date: **10/23/2017** Seq No: **7814577**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Vinyl chloride	489.6	10	500.0	4.800	97.0	55.9	136	477.6	2.48	20	
Xylenes, Total	1389	10	1500		92.6	76.1	139	1416	1.90	20	
Surr: 4-Bromofluorobenzene	512.3	0	500.0		102	70	130	513.9	0	0	
Surr: Dibromofluoromethane	499.1	0	500.0		99.8	70	130	488.8	0	0	
Surr: Toluene-d8	479.1	0	500.0		95.8	70	130	475.9	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250421

Sample ID: **MB-250421** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819158**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	46.30	0	50.00		92.6	84.6	119				
Surr: Dibromofluoromethane	52.76	0	50.00		106	80	119				
Surr: Toluene-d8	49.56	0	50.00		99.1	85	115				

Sample ID: **LCS-250421** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819157**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.940	5.0	10.00		79.4	68.1	133				
Surr: 4-Bromofluorobenzene	47.74	0	50.00		95.5	84.6	119				
Surr: Dibromofluoromethane	53.08	0	50.00		106	80	119				
Surr: Toluene-d8	49.05	0	50.00		98.1	85	115				

Sample ID: **1710K44-001AMS** Client ID: **GW-013926-101917-SDL-005** Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819166**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.13	5.0	10.00		101	65.9	135				
Surr: 4-Bromofluorobenzene	46.59	0	50.00		93.2	84.6	119				
Surr: Dibromofluoromethane	52.13	0	50.00		104	80	119				
Surr: Toluene-d8	49.43	0	50.00		98.9	85	115				

Sample ID: **1710K44-001AMSD** Client ID: **GW-013926-101917-SDL-005** Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819168**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.05	5.0	10.00		100	65.9	135	10.13	0.793	31.5	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250421

Sample ID: **1710K44-001AMSD** Client ID: **GW-013926-101917-SDL-005** Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819168**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	46.15	0	50.00		92.3	84.6	119	46.59	0	0	
Surr: Dibromofluoromethane	52.97	0	50.00		106	80	119	52.13	0	0	
Surr: Toluene-d8	49.25	0	50.00		98.5	85	115	49.43	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: 250442

Sample ID: **MB-250442** Client ID: Units: **mg/L** Prep Date: **10/25/2017** Run No: **355334**
SampleType: **MBLK** TestCode: **Mercury, Total SW7470A** BatchID: **250442** Analysis Date: **10/26/2017** Seq No: **7822457**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.00020									

Sample ID: **LCS-250442** Client ID: Units: **mg/L** Prep Date: **10/25/2017** Run No: **355334**
SampleType: **LCS** TestCode: **Mercury, Total SW7470A** BatchID: **250442** Analysis Date: **10/26/2017** Seq No: **7822458**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004032	0.00020	0.0040		101	80	120				

Sample ID: **1710K44-001BMS** Client ID: **GW-013926-101917-SDL-005** Units: **mg/L** Prep Date: **10/25/2017** Run No: **355334**
SampleType: **MS** TestCode: **Mercury, Total SW7470A** BatchID: **250442** Analysis Date: **10/26/2017** Seq No: **7822460**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004172	0.00020	0.0040		104	70	130				

Sample ID: **1710K44-001BMSD** Client ID: **GW-013926-101917-SDL-005** Units: **mg/L** Prep Date: **10/25/2017** Run No: **355334**
SampleType: **MSD** TestCode: **Mercury, Total SW7470A** BatchID: **250442** Analysis Date: **10/26/2017** Seq No: **7822461**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.004179	0.00020	0.0040		104	70	130	0.004172	0.177	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: R354944

Sample ID: **MB-R354944** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813136**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R354944** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813137**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09670	0.0100	0.1000		96.7	90	110				

Sample ID: **1710J27-010EMS** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813154**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1040	0.0100	0.1000	0.004550	99.4	90	110				

Sample ID: **1710J27-015BMS** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813156**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09970	0.0100	0.1000	0.004350	95.4	90	110				

Sample ID: **1710J27-010EMSD** Client ID: Units: **mg/L** Prep Date: Run No: **354944**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354944** Analysis Date: **10/20/2017** Seq No: **7813155**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1000	0.0100	0.1000	0.004550	95.4	90	110	0.1040	3.92	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: R355008

Sample ID: **MB-R355008** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814481**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R355008** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814480**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	5.054	0.25	5.000		101	90	110				
Sulfate	24.22	1.0	25.00		96.9	90	110				

Sample ID: **1710I84-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814484**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	68.75	2.5	50.00	18.05	101	90	110				
Sulfate	275.0	10	250.0	31.33	97.5	90	110				

Sample ID: **1710I85-002BMS** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814488**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	63.17	2.5	50.00	8.975	108	90	110				
Sulfate	278.1	10	250.0	29.30	99.5	90	110				

Sample ID: **1710I84-002BMSD** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814485**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrate	68.60	2.5	50.00	18.05	101	90	110	68.75	0.214	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: R355008

Sample ID: **1710I84-002BMSD** Client ID: Units: **mg/L** Prep Date: Run No: **355008**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R355008** Analysis Date: **10/20/2017** Seq No: **7814485**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfate	271.5	10	250.0	31.33	96.1	90	110	275.0	1.27	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 30-Oct-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710K44

ANALYTICAL QC SUMMARY REPORT

BatchID: **R355046**

Sample ID: **MB-R355046** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N)** **E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816044**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-355046** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N)** **E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816045**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9360	0.020	1.000		93.6	90	110				

Sample ID: **1710K43-001EMS** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N)** **E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816058**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9880	0.020	1.000		98.8	90	110				

Sample ID: **1710L27-001EMS** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N)** **E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816069**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9780	0.020	1.000		97.8	90	110				

Sample ID: **1710K43-001EMSD** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N)** **E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816059**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9770	0.020	1.000		97.7	90	110	0.9880	1.12	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

November 01, 2017

Terefe Mazengia
GHD Services, Inc.

3075 Breckenridge Blvd., Suite 470
Duluth GA 30096

RE: Aqua-Tech Environmental

Dear Terefe Mazengia: Order No: 1710L27

Analytical Environmental Services, Inc. received 7 samples on October 21, 2017 9:45 am for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES' certifications are as follows:
-South Carolina Certification number 98016003 for Clean Water Act and for Solid and Hazardous Waste, effective until 6/30/18.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Chris Pafford
Project Manager

3080 Presidential Drive • Atlanta, Georgia 30340 • Tel: 770.457.8177 • Fax: 770.457.8188 • Toll Free: 800.972.4889
www.aesatlanta.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1710L27

Date: 10/21/17 Page 1 of 1

COMPANY: GHD
ADDRESS: 3075 Breckinridge Blvd Suite 470
PHONE: 770-441-0027
FAX: 770-441-2050
SAMPLED BY: DJB + SDL
SIGNATURE:

ANALYSIS REQUESTED

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL VOCs + TMBs	1,4 Dioxane	SSP Metals	Fe + Manganese	Dis. Gases	Alkalinity	Chloride	Nitrate	Sulfate	TOC	Ammonia	Orthophosphate	EDB	REMARKS	No # of Containers
1	GW-013926-102017-SDL-007	10/20/17	10:00	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X	See SSOW #	13
2	GW-013926-102017-SDL-008	10/20/17	12:08	✓			X	X	X	X	X	X	X	X	X	X	X	X	X	13926-25-004	13
3	GW-013926-102017-DJB-109	10/20/17	13:00	✓			X	X	X	X	X	X	X	X	X	X	X	X	X		13
4	GW-013926-102017-DJB-110	10/20/17	11:30	✓			X	X	X	X	X	X	X	X	X	X	X	X	X		13
5	GW-013926-102017-DJB-111	10/20/17	13:30	✓			X	X	X	X	X	X	X	X	X	X	X	X	X		13
6	GW-013926-102017-DJB-112	10/20/17	14:00	✓		GW	X	X	X	X	X	X	X	X	X	X	X	X	X		13
7	Trip Blank						X	X													3
8																					
9																					
10																					
11																					
12																					
13																					
14																					

PRESERVATION (See codes)

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	10/21/17 10:00	1: [signature]	10/21/2017 9:45AM
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: Aquatech
PROJECT #: 013926
SITE ADDRESS: Greer, SC
SEND REPORT TO:
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #_____ PO#_____

RECEIPT
Total # of Containers 81

Turnaround Time Request
☒ Standard 5 Business Days
○ 2 Business Day Rush
○ Next Business Day Rush
○ Same Day Rush (auth req.)
○ Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project: Aqua-Tech Environmental
Lab ID: 1710L27

Case Narrative

Micro-extractable VOC Analysis by Method 8011:

Matrix spike duplicate analyses were not performed with Batch 250371 due to insufficient sample volume.

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-SDL-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 10:00:00 AM
Lab ID:	1710L27-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,1,2,2-Tetrachloroethane	5.7		0.34	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250363	1	10/23/2017 22:56	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250363	1	10/23/2017 22:56	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250363	1	10/23/2017 22:56	NP
2-Butanone	BRL		2.5	10	ug/L	250363	1	10/23/2017 22:56	NP
2-Hexanone	BRL		0.67	10	ug/L	250363	1	10/23/2017 22:56	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250363	1	10/23/2017 22:56	NP
Acetone	BRL		3.6	20	ug/L	250363	1	10/23/2017 22:56	NP
Benzene	BRL		0.37	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Bromoform	BRL		0.19	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Bromomethane	BRL		0.39	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250363	1	10/23/2017 22:56	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250363	1	10/23/2017 22:56	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Chloroethane	BRL		0.31	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Chloroform	BRL		0.20	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Chloromethane	BRL		0.21	1.0	ug/L	250363	1	10/23/2017 22:56	NP
cis-1,2-Dichloroethene	22		0.28	1.0	ug/L	250363	1	10/23/2017 22:56	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250363	1	10/23/2017 22:56	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Freon-113	BRL		0.32	5.0	ug/L	250363	1	10/23/2017 22:56	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250363	1	10/23/2017 22:56	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250363	1	10/23/2017 22:56	NP
Methylene chloride	BRL		1.2	5.0	ug/L	250363	1	10/23/2017 22:56	NP
Styrene	BRL		0.15	1.0	ug/L	250363	1	10/23/2017 22:56	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-SDL-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 10:00:00 AM
Lab ID:	1710L27-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	19		0.46	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Toluene	BRL		0.39	1.0	ug/L	250363	1	10/23/2017 22:56	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250363	1	10/23/2017 22:56	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250363	1	10/23/2017 22:56	NP
Trichloroethene	42		0.30	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250363	1	10/23/2017 22:56	NP
Surr: 4-Bromofluorobenzene	96.4		0	70-130	%REC	250363	1	10/23/2017 22:56	NP
Surr: Dibromofluoromethane	102		0	70-130	%REC	250363	1	10/23/2017 22:56	NP
Surr: Toluene-d8	96.8		0	70-130	%REC	250363	1	10/23/2017 22:56	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	0.738	J	0.337	1.00	mg/L	R354991	1	10/23/2017 13:38	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.318	J	0.156	5.00	ug/L	250430	1	10/30/2017 21:46	TA
Barium	70.5		0.185	10.0	ug/L	250430	1	10/29/2017 19:54	TA
Cadmium	0.267	J	0.148	0.700	ug/L	250430	1	10/29/2017 19:54	TA
Chromium	0.395	J	0.193	5.00	ug/L	250430	1	10/29/2017 19:54	TA
Copper	0.389	J	0.126	2.00	ug/L	250430	1	10/29/2017 19:54	TA
Iron	28.0	J	6.47	100	ug/L	250430	1	10/29/2017 19:54	TA
Lead	BRL		0.215	1.00	ug/L	250430	1	10/29/2017 19:54	TA
Manganese	509		0.344	5.00	ug/L	250430	1	10/29/2017 19:54	TA
Selenium	0.464	J	0.264	5.00	ug/L	250430	1	10/29/2017 19:54	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	BRL		0.00410	0.0100	mg/L	R354946	1	10/21/2017 15:05	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R355046	1	10/23/2017 15:11	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250371	1	10/24/2017 20:22	UH
Surr: 4-Bromofluorobenzene	115		0	70.4-134	%REC	250371	1	10/24/2017 20:22	UH
ION SCAN SW9056A									
Chloride	6.6		0.17	1.0	mg/L	R355120	1	10/21/2017 14:14	VL
Nitrate	0.31		0.055	0.25	mg/L	R355120	1	10/21/2017 14:14	VL
Sulfate	0.52	J	0.12	1.0	mg/L	R355120	1	10/21/2017 14:14	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-SDL-007
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 10:00:00 AM
Lab ID:	1710L27-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250453	1	10/26/2017 09:40	UH
Ethylene	BRL		3.5	7.0	ug/L	250453	1	10/26/2017 09:40	UH
Methane	26		1.2	4.0	ug/L	250453	1	10/26/2017 09:40	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	8.00		1.68	3.00	mg/L	R355460	1	10/27/2017 15:45	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	5.8		0.47	2.0	ug/L	250421	1	10/25/2017 09:25	NP
Surr: 4-Bromofluorobenzene	94.2		0	84.6-119	%REC	250421	1	10/25/2017 09:25	NP
Surr: Dibromofluoromethane	104		0	80-119	%REC	250421	1	10/25/2017 09:25	NP
Surr: Toluene-d8	98.6		0	85-115	%REC	250421	1	10/25/2017 09:25	NP

Qualifiers:

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- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-SDL-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 12:08:00 PM
Lab ID:	1710L27-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,1,2,2-Tetrachloroethane	8.6		0.34	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250363	1	10/24/2017 00:08	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 00:08	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250363	1	10/24/2017 00:08	NP
2-Butanone	BRL		2.5	10	ug/L	250363	1	10/24/2017 00:08	NP
2-Hexanone	BRL		0.67	10	ug/L	250363	1	10/24/2017 00:08	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250363	1	10/24/2017 00:08	NP
Acetone	BRL		3.6	20	ug/L	250363	1	10/24/2017 00:08	NP
Benzene	BRL		0.37	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Bromoform	BRL		0.19	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Bromomethane	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250363	1	10/24/2017 00:08	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250363	1	10/24/2017 00:08	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Chloroethane	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Chloroform	BRL		0.20	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Chloromethane	BRL		0.21	1.0	ug/L	250363	1	10/24/2017 00:08	NP
cis-1,2-Dichloroethene	29		0.28	1.0	ug/L	250363	1	10/24/2017 00:08	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250363	1	10/24/2017 00:08	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Freon-113	BRL		0.32	5.0	ug/L	250363	1	10/24/2017 00:08	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250363	1	10/24/2017 00:08	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250363	1	10/24/2017 00:08	NP
Methylene chloride	BRL		1.2	5.0	ug/L	250363	1	10/24/2017 00:08	NP
Styrene	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 00:08	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-SDL-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 12:08:00 PM
Lab ID:	1710L27-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	17		0.46	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Toluene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 00:08	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250363	1	10/24/2017 00:08	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250363	1	10/24/2017 00:08	NP
Trichloroethene	96		0.30	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250363	1	10/24/2017 00:08	NP
Surr: 4-Bromofluorobenzene	94.1		0	70-130	%REC	250363	1	10/24/2017 00:08	NP
Surr: Dibromofluoromethane	106		0	70-130	%REC	250363	1	10/24/2017 00:08	NP
Surr: Toluene-d8	99.6		0	70-130	%REC	250363	1	10/24/2017 00:08	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	1.56		0.337	1.00	mg/L	R354991	1	10/23/2017 14:08	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.397	J	0.156	5.00	ug/L	250430	1	10/30/2017 22:05	TA
Barium	186		0.185	10.0	ug/L	250430	1	10/29/2017 20:03	TA
Cadmium	BRL		0.148	0.700	ug/L	250430	1	10/29/2017 20:03	TA
Chromium	0.553	J	0.193	5.00	ug/L	250430	1	10/29/2017 20:03	TA
Copper	0.439	J	0.126	2.00	ug/L	250430	1	10/29/2017 20:03	TA
Iron	BRL		6.47	100	ug/L	250430	1	10/29/2017 20:03	TA
Lead	BRL		0.215	1.00	ug/L	250430	1	10/29/2017 20:03	TA
Manganese	242		0.344	5.00	ug/L	250430	1	10/29/2017 20:03	TA
Selenium	0.589	J	0.264	5.00	ug/L	250430	1	10/29/2017 20:03	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.00873	J	0.00410	0.0100	mg/L	R354946	1	10/21/2017 15:06	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R355046	1	10/23/2017 15:15	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250371	1	10/24/2017 21:19	UH
Surr: 4-Bromofluorobenzene	111		0	70.4-134	%REC	250371	1	10/24/2017 21:19	UH
ION SCAN SW9056A									
Chloride	29		0.17	1.0	mg/L	R355120	1	10/21/2017 14:29	VL
Nitrate	0.29		0.055	0.25	mg/L	R355120	1	10/21/2017 14:29	VL
Sulfate	2.6		0.12	1.0	mg/L	R355120	1	10/21/2017 14:29	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-SDL-008
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 12:08:00 PM
Lab ID:	1710L27-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250453	1	10/26/2017 09:45	UH
Ethylene	BRL		3.5	7.0	ug/L	250453	1	10/26/2017 09:45	UH
Methane	3.8	J	1.2	4.0	ug/L	250453	1	10/26/2017 09:45	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	4.00		1.68	3.00	mg/L	R355460	1	10/27/2017 15:45	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	11		0.47	2.0	ug/L	250421	1	10/24/2017 23:57	NP
Surr: 4-Bromofluorobenzene	93.8		0	84.6-119	%REC	250421	1	10/24/2017 23:57	NP
Surr: Dibromofluoromethane	105		0	80-119	%REC	250421	1	10/24/2017 23:57	NP
Surr: Toluene-d8	99		0	85-115	%REC	250421	1	10/24/2017 23:57	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 1:00:00 PM
Lab ID:	1710L27-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250363	1	10/24/2017 00:31	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 00:31	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250363	1	10/24/2017 00:31	NP
2-Butanone	BRL		2.5	10	ug/L	250363	1	10/24/2017 00:31	NP
2-Hexanone	BRL		0.67	10	ug/L	250363	1	10/24/2017 00:31	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250363	1	10/24/2017 00:31	NP
Acetone	BRL		3.6	20	ug/L	250363	1	10/24/2017 00:31	NP
Benzene	BRL		0.37	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Bromoform	BRL		0.19	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Bromomethane	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250363	1	10/24/2017 00:31	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250363	1	10/24/2017 00:31	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Chloroethane	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Chloroform	BRL		0.20	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Chloromethane	BRL		0.21	1.0	ug/L	250363	1	10/24/2017 00:31	NP
cis-1,2-Dichloroethene	2.7		0.28	1.0	ug/L	250363	1	10/24/2017 00:31	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250363	1	10/24/2017 00:31	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Freon-113	BRL		0.32	5.0	ug/L	250363	1	10/24/2017 00:31	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250363	1	10/24/2017 00:31	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250363	1	10/24/2017 00:31	NP
Methylene chloride	BRL		1.2	5.0	ug/L	250363	1	10/24/2017 00:31	NP
Styrene	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 00:31	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 1:00:00 PM
Lab ID:	1710L27-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	BRL		0.46	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Toluene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 00:31	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250363	1	10/24/2017 00:31	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250363	1	10/24/2017 00:31	NP
Trichloroethene	BRL		0.30	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Vinyl chloride	1.6		0.30	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250363	1	10/24/2017 00:31	NP
Surr: 4-Bromofluorobenzene	91.3		0	70-130	%REC	250363	1	10/24/2017 00:31	NP
Surr: Dibromofluoromethane	106		0	70-130	%REC	250363	1	10/24/2017 00:31	NP
Surr: Toluene-d8	99.5		0	70-130	%REC	250363	1	10/24/2017 00:31	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	9.40		0.337	1.00	mg/L	R354991	1	10/23/2017 15:13	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.866	J	0.156	5.00	ug/L	250430	1	10/30/2017 22:11	TA
Barium	92.0		0.185	10.0	ug/L	250430	1	10/29/2017 20:05	TA
Cadmium	BRL		0.148	0.700	ug/L	250430	1	10/29/2017 20:05	TA
Chromium	0.330	J	0.193	5.00	ug/L	250430	1	10/29/2017 20:05	TA
Copper	0.805	J	0.126	2.00	ug/L	250430	1	10/29/2017 20:05	TA
Iron	189		6.47	100	ug/L	250430	1	10/29/2017 20:05	TA
Lead	0.417	J	0.215	1.00	ug/L	250430	1	10/29/2017 20:05	TA
Manganese	147		0.344	5.00	ug/L	250430	1	10/29/2017 20:05	TA
Selenium	BRL		0.264	5.00	ug/L	250430	1	10/29/2017 20:05	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.341		0.0410	0.100	mg/L	R354946	10	10/21/2017 15:15	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	2.25		0.040	0.080	mg/L	R355046	4	10/23/2017 15:29	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250371	1	10/24/2017 21:47	UH
Surr: 4-Bromofluorobenzene	116		0	70.4-134	%REC	250371	1	10/24/2017 21:47	UH
ION SCAN SW9056A									
Chloride	7.4		0.17	1.0	mg/L	R355120	1	10/21/2017 14:44	VL
Nitrate	BRL		0.055	0.25	mg/L	R355120	1	10/21/2017 14:44	VL
Sulfate	4.6		0.12	1.0	mg/L	R355120	1	10/21/2017 14:44	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-109
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 1:00:00 PM
Lab ID:	1710L27-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250453	1	10/26/2017 09:50	UH
Ethylene	4.7	J	3.5	7.0	ug/L	250453	1	10/26/2017 09:50	UH
Methane	3600		24	80	ug/L	250453	20	10/26/2017 10:42	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	145		1.68	3.00	mg/L	R355460	1	10/27/2017 15:45	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	26		0.47	2.0	ug/L	250421	1	10/25/2017 00:23	NP
Surr: 4-Bromofluorobenzene	95.7		0	84.6-119	%REC	250421	1	10/25/2017 00:23	NP
Surr: Dibromofluoromethane	107		0	80-119	%REC	250421	1	10/25/2017 00:23	NP
Surr: Toluene-d8	97.9		0	85-115	%REC	250421	1	10/25/2017 00:23	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-110
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 11:30:00 AM
Lab ID:	1710L27-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250363	1	10/24/2017 00:55	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 00:55	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250363	1	10/24/2017 00:55	NP
2-Butanone	BRL		2.5	10	ug/L	250363	1	10/24/2017 00:55	NP
2-Hexanone	BRL		0.67	10	ug/L	250363	1	10/24/2017 00:55	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250363	1	10/24/2017 00:55	NP
Acetone	BRL		3.6	20	ug/L	250363	1	10/24/2017 00:55	NP
Benzene	BRL		0.37	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Bromoform	BRL		0.19	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Bromomethane	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250363	1	10/24/2017 00:55	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250363	1	10/24/2017 00:55	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Chloroethane	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Chloroform	BRL		0.20	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Chloromethane	BRL		0.21	1.0	ug/L	250363	1	10/24/2017 00:55	NP
cis-1,2-Dichloroethene	18		0.28	1.0	ug/L	250363	1	10/24/2017 00:55	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250363	1	10/24/2017 00:55	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Freon-113	BRL		0.32	5.0	ug/L	250363	1	10/24/2017 00:55	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250363	1	10/24/2017 00:55	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250363	1	10/24/2017 00:55	NP
Methylene chloride	BRL		1.2	5.0	ug/L	250363	1	10/24/2017 00:55	NP
Styrene	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 00:55	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-110
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 11:30:00 AM
Lab ID:	1710L27-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	38		0.46	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Toluene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 00:55	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250363	1	10/24/2017 00:55	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250363	1	10/24/2017 00:55	NP
Trichloroethene	67		0.30	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250363	1	10/24/2017 00:55	NP
Surr: 4-Bromofluorobenzene	93.7		0	70-130	%REC	250363	1	10/24/2017 00:55	NP
Surr: Dibromofluoromethane	106		0	70-130	%REC	250363	1	10/24/2017 00:55	NP
Surr: Toluene-d8	101		0	70-130	%REC	250363	1	10/24/2017 00:55	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	BRL		0.337	1.00	mg/L	R354991	1	10/23/2017 15:43	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	0.424	J	0.156	5.00	ug/L	250430	1	10/30/2017 22:18	TA
Barium	111		0.185	10.0	ug/L	250430	1	10/29/2017 20:07	TA
Cadmium	BRL		0.148	0.700	ug/L	250430	1	10/29/2017 20:07	TA
Chromium	4.00	J	0.193	5.00	ug/L	250430	1	10/29/2017 20:07	TA
Copper	0.488	J	0.126	2.00	ug/L	250430	1	10/29/2017 20:07	TA
Iron	124		6.47	100	ug/L	250430	1	10/29/2017 20:07	TA
Lead	0.455	J	0.215	1.00	ug/L	250430	1	10/29/2017 20:07	TA
Manganese	78.0		0.344	5.00	ug/L	250430	1	10/29/2017 20:07	TA
Selenium	0.533	J	0.264	5.00	ug/L	250430	1	10/29/2017 20:07	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0224		0.00410	0.0100	mg/L	R354946	1	10/21/2017 15:08	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	BRL		0.010	0.020	mg/L	R355046	1	10/23/2017 15:18	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250371	1	10/24/2017 22:17	UH
Surr: 4-Bromofluorobenzene	102		0	70.4-134	%REC	250371	1	10/24/2017 22:17	UH
ION SCAN SW9056A									
Chloride	9.1		0.17	1.0	mg/L	R355120	1	10/21/2017 15:00	VL
Nitrate	1.5		0.055	0.25	mg/L	R355120	1	10/21/2017 15:00	VL
Sulfate	2.5		0.12	1.0	mg/L	R355120	1	10/21/2017 15:00	VL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-110
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 11:30:00 AM
Lab ID:	1710L27-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	BRL		1.9	9.0	ug/L	250453	1	10/26/2017 09:55	UH
Ethylene	BRL		3.5	7.0	ug/L	250453	1	10/26/2017 09:55	UH
Methane	16		1.2	4.0	ug/L	250453	1	10/26/2017 09:55	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	8.00		1.68	3.00	mg/L	R355460	1	10/27/2017 15:45	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	9.5		0.47	2.0	ug/L	250421	1	10/25/2017 00:48	NP
Surr: 4-Bromofluorobenzene	94.9		0	84.6-119	%REC	250421	1	10/25/2017 00:48	NP
Surr: Dibromofluoromethane	107		0	80-119	%REC	250421	1	10/25/2017 00:48	NP
Surr: Toluene-d8	98.9		0	85-115	%REC	250421	1	10/25/2017 00:48	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-111
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 1:30:00 PM
Lab ID:	1710L27-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	75		0.30	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,1,2,2-Tetrachloroethane	34		0.34	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,1,2-Trichloroethane	5.8		0.43	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,1-Dichloroethane	23		0.43	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,1-Dichloroethene	11		0.40	2.0	ug/L	250363	1	10/24/2017 01:19	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,2-Dichlorobenzene	3.3		0.45	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,2-Dichloroethane	3.8		0.37	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,3-Dichlorobenzene	1.9		0.31	1.0	ug/L	250363	1	10/24/2017 01:19	NP
1,4-Dichlorobenzene	2.5		0.33	1.0	ug/L	250363	1	10/24/2017 01:19	NP
2-Butanone	BRL		2.5	10	ug/L	250363	1	10/24/2017 01:19	NP
2-Hexanone	BRL		0.67	10	ug/L	250363	1	10/24/2017 01:19	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250363	1	10/24/2017 01:19	NP
Acetone	BRL		3.6	20	ug/L	250363	1	10/24/2017 01:19	NP
Benzene	2.7		0.37	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Bromoform	BRL		0.19	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Bromomethane	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250363	1	10/24/2017 01:19	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250363	1	10/24/2017 01:19	NP
Chlorobenzene	7.9		0.42	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Chloroethane	3.7		0.31	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Chloroform	7.6		0.20	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Chloromethane	BRL		0.21	1.0	ug/L	250363	1	10/24/2017 01:19	NP
cis-1,2-Dichloroethene	340		2.8	10	ug/L	250363	10	10/25/2017 15:35	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250363	1	10/24/2017 01:19	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Freon-113	BRL		0.32	5.0	ug/L	250363	1	10/24/2017 01:19	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250363	1	10/24/2017 01:19	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250363	1	10/24/2017 01:19	NP
Methylene chloride	BRL		1.2	5.0	ug/L	250363	1	10/24/2017 01:19	NP
Styrene	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 01:19	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-111
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 1:30:00 PM
Lab ID:	1710L27-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	220		4.6	10	ug/L	250363	10	10/25/2017 15:35	NP
Toluene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 01:19	NP
trans-1,2-Dichloroethene	5.6		0.30	2.0	ug/L	250363	1	10/24/2017 01:19	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250363	1	10/24/2017 01:19	NP
Trichloroethene	46		0.30	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Vinyl chloride	40		0.30	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250363	1	10/24/2017 01:19	NP
Surr: 4-Bromofluorobenzene	94.1		0	70-130	%REC	250363	1	10/24/2017 01:19	NP
Surr: 4-Bromofluorobenzene	107		0	70-130	%REC	250363	10	10/25/2017 15:35	NP
Surr: Dibromofluoromethane	93.7		0	70-130	%REC	250363	10	10/25/2017 15:35	NP
Surr: Dibromofluoromethane	110		0	70-130	%REC	250363	1	10/24/2017 01:19	NP
Surr: Toluene-d8	94.2		0	70-130	%REC	250363	10	10/25/2017 15:35	NP
Surr: Toluene-d8	100		0	70-130	%REC	250363	1	10/24/2017 01:19	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	8.44		0.337	1.00	mg/L	R354991	1	10/23/2017 18:07	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	2.28	J	0.156	5.00	ug/L	250430	1	10/30/2017 22:24	TA
Barium	300		0.185	10.0	ug/L	250430	1	10/29/2017 20:09	TA
Cadmium	0.295	J	0.148	0.700	ug/L	250430	1	10/29/2017 20:09	TA
Chromium	0.600	J	0.193	5.00	ug/L	250430	1	10/29/2017 20:09	TA
Copper	0.613	J	0.126	2.00	ug/L	250430	1	10/29/2017 20:09	TA
Iron	5000		6.47	100	ug/L	250430	1	10/29/2017 20:09	TA
Lead	1.91		0.215	1.00	ug/L	250430	1	10/29/2017 20:09	TA
Manganese	9930		0.344	5.00	ug/L	250430	1	10/29/2017 20:09	TA
Selenium	BRL		0.264	5.00	ug/L	250430	1	10/29/2017 20:09	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0449		0.00410	0.0100	mg/L	R354946	1	10/21/2017 15:09	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.058		0.010	0.020	mg/L	R355046	1	10/23/2017 15:24	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250371	1	10/24/2017 23:14	UH
Surr: 4-Bromofluorobenzene	111		0	70.4-134	%REC	250371	1	10/24/2017 23:14	UH
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-111
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 1:30:00 PM
Lab ID:	1710L27-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	41		0.17	1.0	mg/L	R355120	1	10/21/2017 15:15	VL
Nitrate	BRL		0.055	0.25	mg/L	R355120	1	10/21/2017 15:15	VL
Sulfate	22		0.12	1.0	mg/L	R355120	1	10/21/2017 15:15	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	3.6	J	1.9	9.0	ug/L	250453	1	10/26/2017 10:00	UH
Ethylene	BRL		3.5	7.0	ug/L	250453	1	10/26/2017 10:00	UH
Methane	170		1.2	4.0	ug/L	250453	1	10/26/2017 10:00	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	28.0		1.68	3.00	mg/L	R355460	1	10/27/2017 15:45	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	180		4.7	20	ug/L	250421	10	10/25/2017 09:51	NP
Surr: 4-Bromofluorobenzene	95.1		0	84.6-119	%REC	250421	10	10/25/2017 09:51	NP
Surr: Dibromofluoromethane	104		0	80-119	%REC	250421	10	10/25/2017 09:51	NP
Surr: Toluene-d8	96.7		0	85-115	%REC	250421	10	10/25/2017 09:51	NP

Qualifiers:

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- BRL Not detected at MDL
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- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-112
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 2:00:00 PM
Lab ID:	1710L27-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	77		0.30	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,1,2,2-Tetrachloroethane	31		0.34	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,1,2-Trichloroethane	5.6		0.43	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,1-Dichloroethane	24		0.43	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,1-Dichloroethene	11		0.40	2.0	ug/L	250363	1	10/24/2017 01:43	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,2-Dichlorobenzene	3.0		0.45	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,2-Dichloroethane	3.3		0.37	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,3-Dichlorobenzene	1.9		0.31	1.0	ug/L	250363	1	10/24/2017 01:43	NP
1,4-Dichlorobenzene	2.5		0.33	1.0	ug/L	250363	1	10/24/2017 01:43	NP
2-Butanone	BRL		2.5	10	ug/L	250363	1	10/24/2017 01:43	NP
2-Hexanone	BRL		0.67	10	ug/L	250363	1	10/24/2017 01:43	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250363	1	10/24/2017 01:43	NP
Acetone	BRL		3.6	20	ug/L	250363	1	10/24/2017 01:43	NP
Benzene	2.5		0.37	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Bromoform	BRL		0.19	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Bromomethane	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250363	1	10/24/2017 01:43	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250363	1	10/24/2017 01:43	NP
Chlorobenzene	7.6		0.42	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Chloroethane	3.8		0.31	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Chloroform	7.0		0.20	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Chloromethane	BRL		0.21	1.0	ug/L	250363	1	10/24/2017 01:43	NP
cis-1,2-Dichloroethene	340		2.8	10	ug/L	250363	10	10/25/2017 15:58	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250363	1	10/24/2017 01:43	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Freon-113	BRL		0.32	5.0	ug/L	250363	1	10/24/2017 01:43	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250363	1	10/24/2017 01:43	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250363	1	10/24/2017 01:43	NP
Methylene chloride	BRL		1.2	5.0	ug/L	250363	1	10/24/2017 01:43	NP
Styrene	BRL		0.15	1.0	ug/L	250363	1	10/24/2017 01:43	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-112
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 2:00:00 PM
Lab ID:	1710L27-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Tetrachloroethene	150		4.6	10	ug/L	250363	10	10/25/2017 15:58	NP
Toluene	BRL		0.39	1.0	ug/L	250363	1	10/24/2017 01:43	NP
trans-1,2-Dichloroethene	5.1		0.30	2.0	ug/L	250363	1	10/24/2017 01:43	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250363	1	10/24/2017 01:43	NP
Trichloroethene	44		0.30	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Vinyl chloride	39		0.30	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250363	1	10/24/2017 01:43	NP
Surr: 4-Bromofluorobenzene	92.9		0	70-130	%REC	250363	1	10/24/2017 01:43	NP
Surr: 4-Bromofluorobenzene	105		0	70-130	%REC	250363	10	10/25/2017 15:58	NP
Surr: Dibromofluoromethane	96.5		0	70-130	%REC	250363	10	10/25/2017 15:58	NP
Surr: Dibromofluoromethane	111		0	70-130	%REC	250363	1	10/24/2017 01:43	NP
Surr: Toluene-d8	99.1		0	70-130	%REC	250363	1	10/24/2017 01:43	NP
Surr: Toluene-d8	98.8		0	70-130	%REC	250363	10	10/25/2017 15:58	NP
Total Organic Carbon (TOC) SW9060A									
Organic Carbon, Total	8.53		0.337	1.00	mg/L	R354991	1	10/23/2017 18:38	CK
Total Metals by ICP/MS SW6020B					**(SW3005A)**				
Arsenic	2.34	J	0.156	5.00	ug/L	250430	1	10/30/2017 22:43	TA
Barium	289		0.185	10.0	ug/L	250430	1	10/29/2017 20:11	TA
Cadmium	0.244	J	0.148	0.700	ug/L	250430	1	10/29/2017 20:11	TA
Chromium	0.595	J	0.193	5.00	ug/L	250430	1	10/29/2017 20:11	TA
Copper	58.3		0.126	2.00	ug/L	250430	1	10/29/2017 20:11	TA
Iron	5300		6.47	100	ug/L	250430	1	10/29/2017 20:11	TA
Lead	0.524	J	0.215	1.00	ug/L	250430	1	10/29/2017 20:11	TA
Manganese	9580		0.344	5.00	ug/L	250430	1	10/29/2017 20:11	TA
Selenium	BRL		0.264	5.00	ug/L	250430	1	10/29/2017 20:11	TA
Phosphorus, ortho E365.1									
Phosphorus, Total Orthophosphate (As P)	0.0232		0.00410	0.0100	mg/L	R354946	1	10/21/2017 15:10	AM
Nitrogen, Ammonia (as N) E350.1					**(E350.1)**				
Nitrogen, Ammonia (As N)	0.057		0.010	0.020	mg/L	R355046	1	10/23/2017 15:25	FS
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.004	0.020	ug/L	250371	1	10/24/2017 23:44	UH
Surr: 4-Bromofluorobenzene	111		0	70.4-134	%REC	250371	1	10/24/2017 23:44	UH
ION SCAN SW9056A									

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	GW-013926-102017-DJB-112
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 2:00:00 PM
Lab ID:	1710L27-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
ION SCAN SW9056A									
Chloride	41		0.17	1.0	mg/L	R355120	1	10/21/2017 15:30	VL
Nitrate	BRL		0.055	0.25	mg/L	R355120	1	10/21/2017 15:30	VL
Sulfate	21		0.12	1.0	mg/L	R355120	1	10/21/2017 15:30	VL
GC Analysis of Gaseous Samples SOP-RSK 175					**(RSK175)**				
Ethane	4.1	J	1.9	9.0	ug/L	250453	1	10/26/2017 10:07	UH
Ethylene	BRL		3.5	7.0	ug/L	250453	1	10/26/2017 10:07	UH
Methane	200		1.2	4.0	ug/L	250453	1	10/26/2017 10:07	UH
Alkalinity by SM2320B									
Alkalinity, Total (As CaCO3)	29.0		1.68	3.00	mg/L	R355460	1	10/27/2017 15:45	AK
1,4-Dioxane by SIM GC/MS SW8260B-SIM					**(SW5030B)**				
1,4-Dioxane	200		4.7	20	ug/L	250421	10	10/25/2017 10:16	NP
Surr: 4-Bromofluorobenzene	95.3		0	84.6-119	%REC	250421	10	10/25/2017 10:16	NP
Surr: Dibromofluoromethane	104		0	80-119	%REC	250421	10	10/25/2017 10:16	NP
Surr: Toluene-d8	97.9		0	85-115	%REC	250421	10	10/25/2017 10:16	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 9:45:00 AM
Lab ID:	1710L27-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS	**SW8260B**				**(SW5030B)**				
1,1,1-Trichloroethane	BRL		0.30	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,1,2,2-Tetrachloroethane	BRL		0.34	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,1,2-Trichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,1-Dichloroethane	BRL		0.43	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,1-Dichloroethene	BRL		0.40	2.0	ug/L	250363	1	10/23/2017 22:32	NP
1,2,4-Trichlorobenzene	BRL		0.39	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,2-Dibromo-3-chloropropane	BRL		0.68	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,2-Dichlorobenzene	BRL		0.45	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,2-Dichloroethane	BRL		0.37	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,2-Dichloropropane	BRL		0.35	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,3-Dichlorobenzene	BRL		0.31	1.0	ug/L	250363	1	10/23/2017 22:32	NP
1,4-Dichlorobenzene	BRL		0.33	1.0	ug/L	250363	1	10/23/2017 22:32	NP
2-Butanone	BRL		2.5	10	ug/L	250363	1	10/23/2017 22:32	NP
2-Hexanone	BRL		0.67	10	ug/L	250363	1	10/23/2017 22:32	NP
4-Methyl-2-pentanone	BRL		0.44	10	ug/L	250363	1	10/23/2017 22:32	NP
Acetone	BRL		3.6	20	ug/L	250363	1	10/23/2017 22:32	NP
Benzene	BRL		0.37	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Bromodichloromethane	BRL		0.25	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Bromoform	BRL		0.19	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Bromomethane	BRL		0.39	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Carbon disulfide	BRL		0.74	5.0	ug/L	250363	1	10/23/2017 22:32	NP
Carbon tetrachloride	BRL		0.29	2.0	ug/L	250363	1	10/23/2017 22:32	NP
Chlorobenzene	BRL		0.42	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Chloroethane	BRL		0.31	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Chloroform	BRL		0.20	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Chloromethane	BRL		0.21	1.0	ug/L	250363	1	10/23/2017 22:32	NP
cis-1,2-Dichloroethene	BRL		0.28	1.0	ug/L	250363	1	10/23/2017 22:32	NP
cis-1,3-Dichloropropene	BRL		0.31	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Cyclohexane	BRL		1.0	2.0	ug/L	250363	1	10/23/2017 22:32	NP
Dibromochloromethane	BRL		0.43	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Dichlorodifluoromethane	BRL		0.15	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Ethylbenzene	BRL		0.26	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Freon-113	BRL		0.32	5.0	ug/L	250363	1	10/23/2017 22:32	NP
Isopropylbenzene	BRL		0.43	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Methyl acetate	BRL		0.42	2.0	ug/L	250363	1	10/23/2017 22:32	NP
Methyl tert-butyl ether	BRL		0.45	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Methylcyclohexane	BRL		0.39	2.0	ug/L	250363	1	10/23/2017 22:32	NP
Methylene chloride	BRL		1.2	5.0	ug/L	250363	1	10/23/2017 22:32	NP
Styrene	BRL		0.15	1.0	ug/L	250363	1	10/23/2017 22:32	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client:	GHD Services, Inc.	**Client Sample ID:**	TRIP BLANK
Project Name:	Aqua-Tech Environmental	**Collection Date:**	10/20/2017 9:45:00 AM
Lab ID:	1710L27-007	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)									
Tetrachloroethene	BRL		0.46	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Toluene	BRL		0.39	1.0	ug/L	250363	1	10/23/2017 22:32	NP
trans-1,2-Dichloroethene	BRL		0.30	2.0	ug/L	250363	1	10/23/2017 22:32	NP
trans-1,3-Dichloropropene	BRL		0.32	2.0	ug/L	250363	1	10/23/2017 22:32	NP
Trichloroethene	BRL		0.30	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Trichlorofluoromethane	BRL		0.18	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Vinyl chloride	BRL		0.30	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Xylenes, Total	BRL		0.77	1.0	ug/L	250363	1	10/23/2017 22:32	NP
Surr: 4-Bromofluorobenzene	94.3		0	70-130	%REC	250363	1	10/23/2017 22:32	NP
Surr: Dibromofluoromethane	106		0	70-130	%REC	250363	1	10/23/2017 22:32	NP
Surr: Toluene-d8	99.8		0	70-130	%REC	250363	1	10/23/2017 22:32	NP
1,4-Dioxane by SIM GC/MS SW8260B-SIM (SW5030B)									
1,4-Dioxane	BRL		0.47	2.0	ug/L	250421	1	10/24/2017 18:50	NP
Surr: 4-Bromofluorobenzene	94.6		0	84.6-119	%REC	250421	1	10/24/2017 18:50	NP
Surr: Dibromofluoromethane	105		0	80-119	%REC	250421	1	10/24/2017 18:50	NP
Surr: Toluene-d8	98.6		0	85-115	%REC	250421	1	10/24/2017 18:50	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Clear Save as

AES ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: GHD Services, Inc. AES Work Order Number: 1710L27

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ■ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	●	○	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 3.3 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MJ 10/21/17

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). MJ 10/21/17

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	●	○	○		
29.	Containers meet preservation guidelines?	●	○	○		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). MJ 10/21/17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710L27

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710L27-001A	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:33:00PM	10/23/2017
1710L27-001A	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/24/2017 5:33:00PM	10/25/2017
1710L27-001B	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/29/2017
1710L27-001B	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/30/2017
1710L27-001C	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	ION SCAN			10/21/2017
1710L27-001E	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710L27-001E	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	Total Organic Carbon (TOC)			10/23/2017
1710L27-001F	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	Phosphorus, ortho			10/21/2017
1710L27-001F	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	Alkalinity by SM2320B			10/27/2017
1710L27-001G	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/24/2017 9:18:47AM	10/24/2017
1710L27-001H	GW-013926-102017-SDL-007	10/20/2017 10:00:00AM	Groundwater	GC Analysis of Gaseous Samples		10/25/2017 4:59:00PM	10/26/2017
1710L27-002A	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:33:00PM	10/24/2017
1710L27-002A	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/24/2017 5:33:00PM	10/24/2017
1710L27-002B	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/29/2017
1710L27-002B	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/30/2017
1710L27-002C	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	ION SCAN			10/21/2017
1710L27-002E	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710L27-002E	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	Total Organic Carbon (TOC)			10/23/2017
1710L27-002F	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	Phosphorus, ortho			10/21/2017
1710L27-002F	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	Alkalinity by SM2320B			10/27/2017
1710L27-002G	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/24/2017 9:18:47AM	10/24/2017
1710L27-002H	GW-013926-102017-SDL-008	10/20/2017 12:08:00PM	Groundwater	GC Analysis of Gaseous Samples		10/25/2017 4:59:00PM	10/26/2017
1710L27-003A	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:33:00PM	10/24/2017
1710L27-003A	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/24/2017 5:33:00PM	10/25/2017
1710L27-003B	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/29/2017
1710L27-003B	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/30/2017
1710L27-003C	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	ION SCAN			10/21/2017
1710L27-003E	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710L27-003E	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	Total Organic Carbon (TOC)			10/23/2017

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710L27

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1710L27-003F	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	Phosphorus, ortho			10/21/2017
1710L27-003F	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	Alkalinity by SM2320B			10/27/2017
1710L27-003G	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/24/2017 9:18:47AM	10/24/2017
1710L27-003H	GW-013926-102017-DJB-109	10/20/2017 1:00:00PM	Groundwater	GC Analysis of Gaseous Samples		10/25/2017 4:59:00PM	10/26/2017
1710L27-004A	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:33:00PM	10/24/2017
1710L27-004A	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	Volatile Organic Compounds by GC/MS		10/24/2017 5:33:00PM	10/25/2017
1710L27-004B	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/29/2017
1710L27-004B	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/30/2017
1710L27-004C	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	ION SCAN			10/21/2017
1710L27-004E	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710L27-004E	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	Total Organic Carbon (TOC)			10/23/2017
1710L27-004F	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	Phosphorus, ortho			10/21/2017
1710L27-004F	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	Alkalinity by SM2320B			10/27/2017
1710L27-004G	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	MICRO-EXTRACTABLE VOCs		10/24/2017 9:18:47AM	10/24/2017
1710L27-004H	GW-013926-102017-DJB-110	10/20/2017 11:30:00AM	Groundwater	GC Analysis of Gaseous Samples		10/25/2017 4:59:00PM	10/26/2017
1710L27-005A	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:33:00PM	10/24/2017
1710L27-005A	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:33:00PM	10/25/2017
1710L27-005A	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/24/2017 5:33:00PM	10/25/2017
1710L27-005B	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/29/2017
1710L27-005B	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	Total Metals by ICP/MS		10/25/2017 5:06:00PM	10/30/2017
1710L27-005C	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	ION SCAN			10/21/2017
1710L27-005E	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	Nitrogen, Ammonia (as N)			10/23/2017
1710L27-005E	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	Total Organic Carbon (TOC)			10/23/2017
1710L27-005F	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	Phosphorus, ortho			10/21/2017
1710L27-005F	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	Alkalinity by SM2320B			10/27/2017
1710L27-005G	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/24/2017 9:18:47AM	10/24/2017
1710L27-005H	GW-013926-102017-DJB-111	10/20/2017 1:30:00PM	Groundwater	GC Analysis of Gaseous Samples		10/25/2017 4:59:00PM	10/26/2017
1710L27-006A	GW-013926-102017-DJB-112	10/20/2017 2:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:33:00PM	10/24/2017
1710L27-006A	GW-013926-102017-DJB-112	10/20/2017 2:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/23/2017 8:33:00PM	10/25/2017

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Lab Order: 1710L27

Dates Report

Lab Sample ID	Client Sample ID	Collection Date		Matrix	Test Name	TCLP Date	Prep Date		Analysis Date
1710L27-006A	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	Volatile Organic Compounds by GC/MS		10/24/2017	5:33:00PM	10/25/2017
1710L27-006B	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	Total Metals by ICP/MS		10/25/2017	5:06:00PM	10/29/2017
1710L27-006B	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	Total Metals by ICP/MS		10/25/2017	5:06:00PM	10/30/2017
1710L27-006C	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	ION SCAN				10/21/2017
1710L27-006E	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	Nitrogen, Ammonia (as N)				10/23/2017
1710L27-006E	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	Total Organic Carbon (TOC)				10/23/2017
1710L27-006F	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	Phosphorus, ortho				10/21/2017
1710L27-006F	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	Alkalinity by SM2320B				10/27/2017
1710L27-006G	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	MICRO-EXTRACTABLE VOCs		10/24/2017	9:18:47AM	10/24/2017
1710L27-006H	GW-013926-102017-DJB-112	10/20/2017	2:00:00PM	Groundwater	GC Analysis of Gaseous Samples		10/25/2017	4:59:00PM	10/26/2017
1710L27-007A	TRIP BLANK	10/20/2017	9:45:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/23/2017	8:33:00PM	10/23/2017
1710L27-007A	TRIP BLANK	10/20/2017	9:45:00AM	Aqueous	Volatile Organic Compounds by GC/MS		10/24/2017	5:33:00PM	10/24/2017

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250363

Sample ID: **MB-250363** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815661**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	1.0									
1,1,2,2-Tetrachloroethane	BRL	1.0									
1,1,2-Trichloroethane	BRL	1.0									
1,1-Dichloroethane	BRL	1.0									
1,1-Dichloroethene	BRL	2.0									
1,2,4-Trichlorobenzene	BRL	1.0									
1,2-Dibromo-3-chloropropane	BRL	1.0									
1,2-Dichlorobenzene	BRL	1.0									
1,2-Dichloroethane	BRL	1.0									
1,2-Dichloropropane	BRL	1.0									
1,3-Dichlorobenzene	BRL	1.0									
1,4-Dichlorobenzene	BRL	1.0									
2-Butanone	BRL	10									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	20									
Benzene	BRL	1.0									
Bromodichloromethane	BRL	1.0									
Bromoform	BRL	1.0									
Bromomethane	BRL	1.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	2.0									
Chlorobenzene	BRL	1.0									
Chloroethane	BRL	1.0									
Chloroform	BRL	1.0									
Chloromethane	BRL	1.0									
cis-1,2-Dichloroethene	BRL	1.0									

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250363

Sample ID: **MB-250363** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815661**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,3-Dichloropropene	BRL	1.0									
Cyclohexane	BRL	2.0									
Dibromochloromethane	BRL	1.0									
Dichlorodifluoromethane	BRL	1.0									
Ethylbenzene	BRL	1.0									
Freon-113	BRL	5.0									
Isopropylbenzene	BRL	1.0									
Methyl acetate	BRL	2.0									
Methyl tert-butyl ether	BRL	1.0									
Methylcyclohexane	BRL	2.0									
Methylene chloride	BRL	5.0									
Styrene	BRL	1.0									
Tetrachloroethene	BRL	1.0									
Toluene	BRL	1.0									
trans-1,2-Dichloroethene	BRL	2.0									
trans-1,3-Dichloropropene	BRL	2.0									
Trichloroethene	BRL	1.0									
Trichlorofluoromethane	BRL	1.0									
Vinyl chloride	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	46.65	0	50.00		93.3	70	130				
Surr: Dibromofluoromethane	50.92	0	50.00		102	70	130				
Surr: Toluene-d8	48.26	0	50.00		96.5	70	130				

Sample ID: **LCS-250363** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815660**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250363

Sample ID: **LCS-250363** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815660**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	56.06	1.0	50.00		112	70	130				
1,1,2,2-Tetrachloroethane	44.19	1.0	50.00		88.4	70	130				
1,1,2-Trichloroethane	51.32	1.0	50.00		103	70	130				
1,1-Dichloroethane	52.32	1.0	50.00		105	70	130				
1,1-Dichloroethene	59.34	2.0	50.00		119	60	140				
1,2,4-Trichlorobenzene	50.59	1.0	50.00		101	70	130				
1,2-Dibromo-3-chloropropane	48.65	1.0	50.00		97.3	70	130				
1,2-Dichlorobenzene	51.01	1.0	50.00		102	70	130				
1,2-Dichloroethane	52.68	1.0	50.00		105	70	130				
1,2-Dichloropropane	51.68	1.0	50.00		103	70	130				
1,3-Dichlorobenzene	48.24	1.0	50.00		96.5	70	130				
1,4-Dichlorobenzene	47.74	1.0	50.00		95.5	70	130				
Benzene	52.40	1.0	50.00		105	70	130				
Bromodichloromethane	51.31	1.0	50.00		103	70	130				
Bromoform	46.44	1.0	50.00		92.9	70	130				
Carbon tetrachloride	57.82	2.0	50.00		116	70	130				
Chlorobenzene	49.27	1.0	50.00		98.5	70	130				
Chloroform	54.20	1.0	50.00		108	70	130				
cis-1,2-Dichloroethene	52.17	1.0	50.00		104	70	130				
cis-1,3-Dichloropropene	53.50	1.0	50.00		107	70	130				
Dibromochloromethane	50.94	1.0	50.00		102	70	130				
Ethylbenzene	51.55	1.0	50.00		103	70	130				
Isopropylbenzene	48.09	1.0	50.00		96.2	70	130				
Methylene chloride	53.33	5.0	50.00		107	70	130				
Styrene	61.60	1.0	50.00		123	70	130				
Tetrachloroethene	48.89	1.0	50.00		97.8	70	130				
Toluene	51.71	1.0	50.00		103	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250363

Sample ID: **LCS-250363** Client ID: Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **LCS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815660**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
trans-1,2-Dichloroethene	54.76	2.0	50.00		110	70	130				
trans-1,3-Dichloropropene	53.64	2.0	50.00		107	70	130				
Trichloroethene	49.03	1.0	50.00		98.1	70	130				
Vinyl chloride	59.49	1.0	50.00		119	70	130				
Xylenes, Total	159.3	1.0	150.0		106	70	130				
Surr: 4-Bromofluorobenzene	52.11	0	50.00		104	70	130				
Surr: Dibromofluoromethane	51.69	0	50.00		103	70	130				
Surr: Toluene-d8	49.32	0	50.00		98.6	70	130				

Sample ID: **1710L27-001AMS** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815666**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	60.40	1.0	50.00		121	72.2	142				
1,1,2,2-Tetrachloroethane	47.08	1.0	50.00	5.670	82.8	69.5	127				
1,1,2-Trichloroethane	52.35	1.0	50.00		105	75.4	127				
1,1-Dichloroethane	54.74	1.0	50.00		109	64.4	128				
1,1-Dichloroethene	63.06	2.0	50.00		126	64.3	149				
1,2,4-Trichlorobenzene	46.73	1.0	50.00		93.5	62.3	123				
1,2-Dibromo-3-chloropropane	46.23	1.0	50.00		92.5	58.9	131				
1,2-Dichlorobenzene	49.47	1.0	50.00		98.9	66.8	125				
1,2-Dichloroethane	55.43	1.0	50.00		111	71.9	139				
1,2-Dichloropropane	52.35	1.0	50.00		105	73.2	126				
1,3-Dichlorobenzene	46.84	1.0	50.00		93.7	69.7	123				
1,4-Dichlorobenzene	45.74	1.0	50.00		91.5	66.8	126				
Benzene	56.02	1.0	50.00		112	71.6	132				
Bromodichloromethane	53.22	1.0	50.00		106	71.8	133				
Bromoform	47.97	1.0	50.00		95.9	58.2	132				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250363

Sample ID: **1710L27-001AMS** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **MS** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815666**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Carbon tetrachloride	65.60	2.0	50.00		131	61.8	142				
Chlorobenzene	51.44	1.0	50.00		103	73.1	126				
Chloroform	57.01	1.0	50.00		114	70.1	133				
cis-1,2-Dichloroethene	75.95	1.0	50.00	22.27	107	71.4	136				
cis-1,3-Dichloropropene	53.41	1.0	50.00		107	65.9	128				
Dibromochloromethane	49.89	1.0	50.00		99.8	63.8	134				
Ethylbenzene	54.88	1.0	50.00		110	81.2	130				
Isopropylbenzene	46.69	1.0	50.00		93.4	66	127				
Methylene chloride	53.07	5.0	50.00		106	68.4	135				
Styrene	52.67	1.0	50.00		105	70.1	128				
Tetrachloroethene	70.20	1.0	50.00	19.38	102	69.1	133				
Toluene	54.80	1.0	50.00		110	72.5	135				
trans-1,2-Dichloroethene	56.51	2.0	50.00		113	62.4	132				
trans-1,3-Dichloropropene	52.75	2.0	50.00		106	69.7	137				
Trichloroethene	97.29	1.0	50.00	42.05	110	70.2	132				
Vinyl chloride	64.37	1.0	50.00		129	55.9	136				
Xylenes, Total	169.6	1.0	150.0		113	76.1	139				
Surr: 4-Bromofluorobenzene	55.98	0	50.00		112	70	130				
Surr: Dibromofluoromethane	53.48	0	50.00		107	70	130				
Surr: Toluene-d8	50.55	0	50.00		101	70	130				

Sample ID: **1710L27-001AMSD** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815667**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	57.98	1.0	50.00		116	72.2	142	60.40	4.09	20	
1,1,2,2-Tetrachloroethane	48.77	1.0	50.00	5.670	86.2	69.5	127	47.08	3.53	20	
1,1,2-Trichloroethane	51.68	1.0	50.00		103	75.4	127	52.35	1.29	20	

Qualifiers:
- > Greater than Result value
- BRL Below reporting limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- < Less than Result value
- E Estimated (value above quantitation range)
- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250363

Sample ID: **1710L27-001AMSD** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815667**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethane	51.47	1.0	50.00		103	64.4	128	54.74	6.16	20	
1,1-Dichloroethene	61.08	2.0	50.00		122	64.3	149	63.06	3.19	30.8	
1,2,4-Trichlorobenzene	48.97	1.0	50.00		97.9	62.3	123	46.73	4.68	36.8	
1,2-Dibromo-3-chloropropane	49.15	1.0	50.00		98.3	58.9	131	46.23	6.12	20	
1,2-Dichlorobenzene	50.53	1.0	50.00		101	66.8	125	49.47	2.12	20	
1,2-Dichloroethane	54.51	1.0	50.00		109	71.9	139	55.43	1.67	20	
1,2-Dichloropropane	50.80	1.0	50.00		102	73.2	126	52.35	3.01	20	
1,3-Dichlorobenzene	47.09	1.0	50.00		94.2	69.7	123	46.84	0.532	20	
1,4-Dichlorobenzene	46.26	1.0	50.00		92.5	66.8	126	45.74	1.13	20	
Benzene	53.84	1.0	50.00		108	71.6	132	56.02	3.97	20.7	
Bromodichloromethane	52.33	1.0	50.00		105	71.8	133	53.22	1.69	20	
Bromoform	47.28	1.0	50.00		94.6	58.2	132	47.97	1.45	20	
Carbon tetrachloride	64.84	2.0	50.00		130	61.8	142	65.60	1.17	20	
Chlorobenzene	50.35	1.0	50.00		101	73.1	126	51.44	2.14	26.6	
Chloroform	54.17	1.0	50.00		108	70.1	133	57.01	5.11	20	
cis-1,2-Dichloroethene	74.39	1.0	50.00	22.27	104	71.4	136	75.95	2.08	20	
cis-1,3-Dichloropropene	52.41	1.0	50.00		105	65.9	128	53.41	1.89	20	
Dibromochloromethane	50.96	1.0	50.00		102	63.8	134	49.89	2.12	20	
Ethylbenzene	53.75	1.0	50.00		108	81.2	130	54.88	2.08	20	
Isopropylbenzene	47.75	1.0	50.00		95.5	66	127	46.69	2.24	20	
Methylene chloride	51.83	5.0	50.00		104	68.4	135	53.07	2.36	20	
Styrene	52.24	1.0	50.00		104	70.1	128	52.67	0.820	20	
Tetrachloroethene	71.32	1.0	50.00	19.38	104	69.1	133	70.20	1.58	20	
Toluene	53.47	1.0	50.00		107	72.5	135	54.80	2.46	23.2	
trans-1,2-Dichloroethene	55.22	2.0	50.00		110	62.4	132	56.51	2.31	20	
trans-1,3-Dichloropropene	52.26	2.0	50.00		105	69.7	137	52.75	0.933	20	
Trichloroethene	94.35	1.0	50.00	42.05	105	70.2	132	97.29	3.07	27.7	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250363

Sample ID: **1710L27-001AMSD** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/23/2017** Run No: **355054**
SampleType: **MSD** TestCode: **Volatile Organic Compounds by GC/MS SW8260B** BatchID: **250363** Analysis Date: **10/23/2017** Seq No: **7815667**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Vinyl chloride	63.23	1.0	50.00		126	55.9	136	64.37	1.79	20	
Xylenes, Total	164.7	1.0	150.0		110	76.1	139	169.6	2.97	20	
Surr: 4-Bromofluorobenzene	52.95	0	50.00		106	70	130	55.98	0	0	
Surr: Dibromofluoromethane	53.29	0	50.00		107	70	130	53.48	0	0	
Surr: Toluene-d8	50.04	0	50.00		100	70	130	50.55	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250371

Sample ID: **MB-250371** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355181**
SampleType: **MBLK** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250371** Analysis Date: **10/24/2017** Seq No: **7819226**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	BRL	0.020									
Surr: 4-Bromofluorobenzene	5.724	0	5.000		114	70	130				

Sample ID: **LCS-250371** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355181**
SampleType: **LCS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250371** Analysis Date: **10/24/2017** Seq No: **7819227**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1050	0.020	0.1000		105	60	140				
Surr: 4-Bromofluorobenzene	5.812	0	5.000		116	70	130				

Sample ID: **LCSD-250371** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355181**
SampleType: **LCSD** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250371** Analysis Date: **10/24/2017** Seq No: **7819228**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.1000	0.020	0.1000		100	60	140	0.1050	4.88	18.2	
Surr: 4-Bromofluorobenzene	5.574	0	5.000		111	70	130	5.812	0	0	

Sample ID: **1710L27-001GMS** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/24/2017** Run No: **355181**
SampleType: **MS** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **250371** Analysis Date: **10/24/2017** Seq No: **7819231**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dibromoethane	0.09764	0.020	0.1007		97.0	61.5	131				
Surr: 4-Bromofluorobenzene	5.410	0	5.033		107	70.4	134				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250421

Sample ID: **MB-250421** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **MBLK** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819158**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	BRL	5.0									
Surr: 4-Bromofluorobenzene	46.30	0	50.00		92.6	84.6	119				
Surr: Dibromofluoromethane	52.76	0	50.00		106	80	119				
Surr: Toluene-d8	49.56	0	50.00		99.1	85	115				

Sample ID: **LCS-250421** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **LCS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819157**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	7.940	5.0	10.00		79.4	68.1	133				
Surr: 4-Bromofluorobenzene	47.74	0	50.00		95.5	84.6	119				
Surr: Dibromofluoromethane	53.08	0	50.00		106	80	119				
Surr: Toluene-d8	49.05	0	50.00		98.1	85	115				

Sample ID: **1710K44-001AMS** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **MS** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819166**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.13	5.0	10.00		101	65.9	135				
Surr: 4-Bromofluorobenzene	46.59	0	50.00		93.2	84.6	119				
Surr: Dibromofluoromethane	52.13	0	50.00		104	80	119				
Surr: Toluene-d8	49.43	0	50.00		98.9	85	115				

Sample ID: **1710K44-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819168**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,4-Dioxane	10.05	5.0	10.00		100	65.9	135	10.13	0.793	31.5	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250421

Sample ID: **1710K44-001AMSD** Client ID: Units: **ug/L** Prep Date: **10/24/2017** Run No: **355178**
SampleType: **MSD** TestCode: **1,4-Dioxane by SIM GC/MS SW8260B-SIM** BatchID: **250421** Analysis Date: **10/24/2017** Seq No: **7819168**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	46.15	0	50.00		92.3	84.6	119	46.59	0	0	
Surr: Dibromofluoromethane	52.97	0	50.00		106	80	119	52.13	0	0	
Surr: Toluene-d8	49.25	0	50.00		98.5	85	115	49.43	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250430

Sample ID: **MB-250430** Client ID: Units: **ug/L** Prep Date: **10/25/2017** Run No: **355483**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250430** Analysis Date: **10/29/2017** Seq No: **7827039**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Barium	BRL	10.0									
Cadmium	BRL	0.700									
Chromium	0.3564	5.00									J
Copper	0.2354	2.00									J
Iron	BRL	100									
Lead	BRL	1.00									
Manganese	BRL	5.00									
Selenium	0.4247	5.00									J

Sample ID: **MB-250430** Client ID: Units: **ug/L** Prep Date: **10/25/2017** Run No: **355619**
SampleType: **MBLK** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250430** Analysis Date: **10/30/2017** Seq No: **7830036**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.2219	5.00									J

Sample ID: **LCS-250430** Client ID: Units: **ug/L** Prep Date: **10/25/2017** Run No: **355483**
SampleType: **LCS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250430** Analysis Date: **10/29/2017** Seq No: **7827040**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	115.6	5.00	100.0	7.290	108	80	120				
Barium	98.50	10.0	100.0		98.5	80	120				
Cadmium	95.84	0.700	100.0		95.8	80	120				
Chromium	104.0	5.00	100.0	0.3564	104	80	120				
Copper	107.2	2.00	100.0	0.2354	107	80	120				
Iron	1090	100	1000		109	80	120				
Lead	102.5	1.00	100.0		103	80	120				
Manganese	88.17	5.00	100.0		88.2	80	120				
Selenium	111.6	5.00	100.0	0.4247	111	80	120				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250430

Sample ID: **1710L27-001BMS** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/25/2017** Run No: **355483**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250430** Analysis Date: **10/29/2017** Seq No: **7827044**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Barium	170.7	10.0	100.0	70.51	100	75	125				
Cadmium	98.42	0.700	100.0	0.2665	98.2	75	125				
Chromium	104.0	5.00	100.0	0.3949	104	75	125				
Copper	110.4	2.00	100.0	0.3891	110	75	125				
Iron	1087	100	1000	27.97	106	75	125				
Lead	104.5	1.00	100.0		104	75	125				
Manganese	573.3	5.00	100.0	509.4	63.9	75	125				S
Selenium	111.0	5.00	100.0	0.4643	110	75	125				

Sample ID: **1710L27-001BMS** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/25/2017** Run No: **355619**
SampleType: **MS** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250430** Analysis Date: **10/30/2017** Seq No: **7830039**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	100.5	5.00	100.0	0.3183	100	75	125				

Sample ID: **1710L27-001BMSD** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/25/2017** Run No: **355483**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250430** Analysis Date: **10/29/2017** Seq No: **7827045**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Barium	169.8	10.0	100.0	70.51	99.3	75	125	170.7	0.507	20	
Cadmium	106.9	0.700	100.0	0.2665	107	75	125	98.42	8.28	20	
Chromium	105.1	5.00	100.0	0.3949	105	75	125	104.0	1.04	20	
Copper	110.5	2.00	100.0	0.3891	110	75	125	110.4	0.108	20	
Iron	1116	100	1000	27.97	109	75	125	1087	2.61	20	
Lead	105.7	1.00	100.0		106	75	125	104.5	1.21	20	
Manganese	566.4	5.00	100.0	509.4	57.0	75	125	573.3	1.22	20	S
Selenium	117.1	5.00	100.0	0.4643	117	75	125	111.0	5.35	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250430

Sample ID: **1710L27-001BMSD** Client ID: **GW-013926-102017-SDL-007** Units: **ug/L** Prep Date: **10/25/2017** Run No: **355619**
SampleType: **MSD** TestCode: **Total Metals by ICP/MS SW6020B** BatchID: **250430** Analysis Date: **10/30/2017** Seq No: **7830041**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	96.06	5.00	100.0	0.3183	95.7	75	125	100.5	4.56	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250453

Sample ID: **MB-250453** Client ID: Units: **ug/L** Prep Date: **10/25/2017** Run No: **355385**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250453** Analysis Date: **10/26/2017** Seq No: **7823840**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9.0									
Ethylene	BRL	7.0									
Methane	BRL	4.0									

Sample ID: **LCS-250453** Client ID: Units: **ug/L** Prep Date: **10/25/2017** Run No: **355385**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250453** Analysis Date: **10/26/2017** Seq No: **7823841**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	123.0	9.0	200.0		61.5	43.9	115				
Ethylene	82.52	7.0	200.0		41.3	29.6	115				
Methane	132.8	4.0	200.0		66.4	49.2	115				

Sample ID: **LCSD-250453** Client ID: Units: **ug/L** Prep Date: **10/25/2017** Run No: **355385**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250453** Analysis Date: **10/26/2017** Seq No: **7823842**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	116.1	9.0	200.0		58.1	43.9	115	123.0	5.76	20	
Ethylene	77.93	7.0	200.0		39.0	29.6	115	82.52	5.72	20	
Methane	126.8	4.0	200.0		63.4	49.2	115	132.8	4.62	20	

Sample ID: **1710L27-002HMS** Client ID: **GW-013926-102017-SDL-008** Units: **ug/L** Prep Date: **10/25/2017** Run No: **355385**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250453** Analysis Date: **10/26/2017** Seq No: **7823864**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	112.2	9.0	200.0		56.1	36.3	115				
Ethylene	74.86	7.0	200.0		37.4	27	115				
Methane	120.2	4.0	200.0	8.518	55.9	40.5	115				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: 250453

Sample ID: **1710L27-002HMSD** Client ID: **GW-013926-102017-SDL-008** Units: **ug/L** Prep Date: **10/25/2017** Run No: **355385**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **250453** Analysis Date: **10/26/2017** Seq No: **7823865**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	109.6	9.0	200.0		54.8	36.3	115	112.2	2.33	20	
Ethylene	73.11	7.0	200.0		36.6	27	115	74.86	2.36	20	
Methane	118.3	4.0	200.0	8.518	54.9	40.5	115	120.2	1.65	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: R354946

Sample ID: **MB-R354946** Client ID: Units: **mg/L** Prep Date: Run No: **354946**
SampleType: **MBLK** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354946** Analysis Date: **10/21/2017** Seq No: **7816946**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	BRL	0.0100									

Sample ID: **LCS-R354946** Client ID: Units: **mg/L** Prep Date: Run No: **354946**
SampleType: **LCS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354946** Analysis Date: **10/21/2017** Seq No: **7816947**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.09850	0.0100	0.1000		98.5	90	110				

Sample ID: **1710L27-001FMS** Client ID: **GW-013926-102017-SDL-007** Units: **mg/L** Prep Date: Run No: **354946**
SampleType: **MS** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354946** Analysis Date: **10/21/2017** Seq No: **7816954**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1000	0.0100	0.1000		100	90	110				

Sample ID: **1710L27-001FMSD** Client ID: **GW-013926-102017-SDL-007** Units: **mg/L** Prep Date: Run No: **354946**
SampleType: **MSD** TestCode: **Phosphorus, ortho E365.1** BatchID: **R354946** Analysis Date: **10/21/2017** Seq No: **7816955**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Phosphorus, Total Orthophosphate (As	0.1050	0.0100	0.1000		105	90	110	0.1000	4.88	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: R354991

Sample ID: **MB-R354991** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **MBLK** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815238**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	BRL	1.00									

Sample ID: **LCS-R354991** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **LCS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815236**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.46	1.00	25.00		102	90	110				

Sample ID: **1710I63-002FMS** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **MS** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815242**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.52	1.00	25.00		102	80	120				

Sample ID: **1710I63-002FMSD** Client ID: Units: **mg/L** Prep Date: Run No: **354991**
SampleType: **MSD** TestCode: **Total Organic Carbon (TOC) SW9060A** BatchID: **R354991** Analysis Date: **10/20/2017** Seq No: **7815243**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Organic Carbon, Total	25.52	1.00	25.00		102	80	120	25.52	0	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: **R355046**

Sample ID: **MB-R355046** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MBLK** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816044**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	BRL	0.020									

Sample ID: **LCS-355046** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **LCS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816045**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9360	0.020	1.000		93.6	90	110				

Sample ID: **1710K43-001EMS** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816058**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9880	0.020	1.000		98.8	90	110				

Sample ID: **1710L27-001EMS** Client ID: **GW-013926-102017-SDL-007** Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MS** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816069**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9780	0.020	1.000		97.8	90	110				

Sample ID: **1710K43-001EMSD** Client ID: Units: **mg/L** Prep Date: Run No: **355046**
SampleType: **MSD** TestCode: **Nitrogen, Ammonia (as N) E350.1** BatchID: **R355046** Analysis Date: **10/23/2017** Seq No: **7816059**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Nitrogen, Ammonia (As N)	0.9770	0.020	1.000		97.7	90	110	0.9880	1.12	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: R355120

Sample ID: **MB-R355120** Client ID: Units: **mg/L** Prep Date: Run No: **355120**
SampleType: **MBLK** TestCode: **ION SCAN SW9056A** BatchID: **R355120** Analysis Date: **10/21/2017** Seq No: **7817601**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: **LCS-R355120** Client ID: Units: **mg/L** Prep Date: Run No: **355120**
SampleType: **LCS** TestCode: **ION SCAN SW9056A** BatchID: **R355120** Analysis Date: **10/21/2017** Seq No: **7817600**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	5.153	1.0	5.000		103	90	110				
Nitrate	4.966	0.25	5.000		99.3	90	110				
Sulfate	23.72	1.0	25.00		94.9	90	110				

Sample ID: **1710L27-001CMS** Client ID: **GW-013926-102017-SDL-007** Units: **mg/L** Prep Date: Run No: **355120**
SampleType: **MS** TestCode: **ION SCAN SW9056A** BatchID: **R355120** Analysis Date: **10/21/2017** Seq No: **7817596**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	12.06	1.0	5.000	6.624	109	90	110				
Nitrate	5.369	0.25	5.000	0.3091	101	90	110				
Sulfate	25.59	1.0	25.00	0.5173	100	90	110				

Sample ID: **1710L27-001CMSD** Client ID: **GW-013926-102017-SDL-007** Units: **mg/L** Prep Date: Run No: **355120**
SampleType: **MSD** TestCode: **ION SCAN SW9056A** BatchID: **R355120** Analysis Date: **10/21/2017** Seq No: **7817597**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chloride	12.18	1.0	5.000	6.624	111	90	110	12.06	0.936	20	S
Nitrate	5.386	0.25	5.000	0.3091	102	90	110	5.369	0.300	20	
Sulfate	24.73	1.0	25.00	0.5173	96.8	90	110	25.59	3.45	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc

Date: 1-Nov-17

Client: GHD Services, Inc.
Project Name: Aqua-Tech Environmental
Workorder: 1710L27

ANALYTICAL QC SUMMARY REPORT

BatchID: R355460

Sample ID: **MB-R355460** Client ID: Units: **mg/L** Prep Date: Run No: **355460**
SampleType: **MBLK** TestCode: **Alkalinity by SM2320B** BatchID: **R355460** Analysis Date: **10/27/2017** Seq No: **7825587**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	BRL	3.00									

Sample ID: **LCS-R355460** Client ID: Units: **mg/L** Prep Date: Run No: **355460**
SampleType: **LCS** TestCode: **Alkalinity by SM2320B** BatchID: **R355460** Analysis Date: **10/27/2017** Seq No: **7825588**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	120.0	3.00	125.0		96.0	75	125				

Sample ID: **1710K87-002ADUP** Client ID: Units: **mg/L** Prep Date: Run No: **355460**
SampleType: **DUP** TestCode: **Alkalinity by SM2320B** BatchID: **R355460** Analysis Date: **10/27/2017** Seq No: **7825601**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	30.00	3.00						30.00	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Attachment C
Analytical Results

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

Location ID:		MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27	GW-0
Sample Name:		GW-020311-SAG-105	GW-051811-DJB-005	GW-070611-EAH-001	GW-101111-DJB-101	GW-042412-AWY-002	GW-042412-AWY-003	GW-103012-BCW-110	GW-041613-CRM-002	GW-013926-102313-DJB-101	GW-013926-042414-DWH-101	
Sample Date:		2/3/2011	5/18/2011	7/6/2011	10/11/2011	4/24/2012	4/24/2012	10/30/2012	4/16/2013	10/23/2013	4/24/2014	
Performance Event:		Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post-injection	8th Post-injection	
Parameters	Units						Duplicate					
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	1.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	0.53 J	5.0 U	5.0 U	0.48 J	0.54 J	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L											
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	50 U	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
Acetone	ug/L	13 J	50 UJ	50 U	11 J	50 U	50 U	25.0 U	25.0 U	20 U	20 U	
Benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	1.2 J	5.0 UJ	0.70 J	5.0 U	0.69 J	0.73 J	0.67 J	0.40 J	0.46 J	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	8.6	1.0 J	5.0 U	5.0 U	0.65 J	5.0 U	2.1 J	1.3 J	1.8	1.3	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	6.2	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	17	5.8 J	6.2	4.1 J	5.8	5.9	4.0 J	3.7 J	3.2	2.2	
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**1800**	**630**	**170**	**390**	**610**	**530**	**583**	**537**	**740**	**540**	
Toluene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	**13**	2.4 J	5.0 U	5.0 U	1.9 J	2.2 J	3.7 J	2.9 J	**3.4**	**3.4**	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 UJ	10 U	10 U	10 U	10 U	10.0 U	0.23 J	5.0 U	5.0 U	
Vinyl chloride	ug/L	2.0 U	2.0 UJ	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Metals (Totals)												
Aluminum	mg/L	-	**1.72**	**18.3**	**1.07**	**2.83**	**2.20**	**8.51**	**27.7**	**13.1**	3.71 J	
Antimony	mg/L	-	0.0053 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	
Arsenic	mg/L	0.0500 U	0.0500 U	0.0155 J	0.107	0.0733	0.0731	0.0384	0.037	0.0123	0.0075	
Barium	mg/L	0.314	0.284	0.612	0.0811	0.0956	0.0826	0.196 J	0.684	0.334	0.11	
Beryllium	mg/L	-	0.0007 J	0.0011 J	0.0100 U	0.0100 U	0.0100 U	0.00063 J	0.0014	0.000756 J	0.001 U	
Cadmium	mg/L	0.0050 U	0.0003 J	0.0001 J	-	0.0034 J	0.0033 J	0.005 U	0.005 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	0.0050 U	-	-	0.0050 U	-	-	-	-	-	-	
Calcium	mg/L	-	31.1	22.0	9.86	3.65	3.44	1.08	1.6	1.1	0.507	
Chromium	mg/L	0.0094 J	**0.0385**	**0.152**	**0.142**	**0.0529**	**0.0512**	0.0055 J	**0.0518**	**0.0246**	**0.00986**	
Cobalt	mg/L	-	0.0018 J	0.0108 J	0.0010 J	0.0017 J	0.0014 J	0.0028 J	0.0102	0.00625	0.005 U	
Copper	mg/L	0.0011 J	0.0100 U	0.0059 J	0.0100 U	0.0100 U	0.0100 U	0.0023 J	0.0038 J	0.00311	0.002 U	
Iron	mg/L	**4.26**	**0.781**	**15.7**	**0.937**	**2.27**	**1.71**	**6.08**	**20.5**	**10.7**	2.9 J	
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	**0.114**	0.0428 J	0.1 U	0.1 U	
Lead	mg/L	**0.221**	0.0100 U	0.0093 J	0.0100 U	0.0019 J	0.0027 J	0.005 U	0.0218	0.00781	0.00202	
Magnesium	mg/L	-	13.7	15.4	5.00	2.56	2.36	2.53	7.68	4.19	1.3 J	
Manganese	mg/L	**0.637**	**0.661**	**0.845**	**0.390**	**0.306**	**0.263**	**0.585**	**2.42**	**1.34**	0.225 J	
Manganese (dissolved)	mg/L	**0.515**	**0.490**	**0.320**	**0.127**	0.0172 J	0.0293 J	**0.0245**	**0.0152**	0.00215 J	**0.00834**	
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00007 J	0.00020 U	

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

Location ID:		MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	
Sample Name:		GW-020311-SAG-107	GW-051811-DJB-004	GW-070611-EAH-002	GW-101111-SAG-002	GW-101111-SAG-003	GW-042412-AWY-001	GW-103012-BCW-108	GW-041613-CRM-001	GW-013926-102313-SAG-005	GW-013926-042414-DWH-103	GW-01
Sample Date:		2/3/2011	5/18/2011	7/6/2011	10/11/2011	10/11/2011	4/24/2012	10/30/2012	4/16/2013	10/23/2013	4/24/2014	
Performance Event:		Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post-injection	8th Post-injection	9
Parameters	**Units**					Duplicate						
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	5.0 U	R	R	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.021 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	1.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L											
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 UJ	50 U	50 UJ	50 U	50 U	10.0 U	10.0 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
Acetone	ug/L	50 U	2.9 J	38 J	17 J	20 J	7.2 J	25.0 U	25.0 U	14 J	20 U	
Benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	0.44 J	10.0 U	10.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 UJ	5.8	5.0 UJ	5.0 U	5.0 U	0.65 J	0.64 J	0.60 J	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 UJ	1.0 J	10 UJ	10 U	10 U	0.97 J	10.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	10	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	1.3 J	1.4 J	1.4	1.4	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 UJ	6.5	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	13	3.9 J	2.0 J	1.7 J	5.0 U	1.4 J	3.7 J	3.9 J	3.7	2.7	
Methylene chloride	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**1800**	520 J	**94**	210 J	410 J	**53**	**451**	**820**	**890**	**650**	
Toluene	ug/L	5.0 U	R	R	5.0 UJ	5.0 U	5.0 U	0.27 J	10.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	**13**	0.83 J	5.0 U	5.0 UJ	5.0 U	5.0 U	2.6 J	3.6 J	**2.8**	**3.2**	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 UJ	10 U	10 UJ	10 U	10 U	0.30 J	0.28 J	5.0 U	5.0 U	
Vinyl chloride	ug/L	2.0 U	2.0 UJ	2.0 U	2.0 UJ	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Metals (Totals)												
Aluminum	mg/L	-	**2.73**	**6.30**	**6.19**	**6.15**	**8.51**	**3.24**	**1.11**	**11.7**	**3.44**	
Antimony	mg/L	-	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0034 J	0.0092 J	0.0359	0.0506	
Barium	mg/L	0.240	0.835	0.832	0.244 J	0.130 J	0.155	0.08 J	0.0542 J	0.391	0.0992	
Beryllium	mg/L	-	0.0011 J	0.0026 J	0.0020 J	0.0021 J	0.0016 J	0.001 U	0.001 U	0.00081 J	0.001 U	
Cadmium	mg/L	0.0050 U	0.0008 J	0.0016 J	-	-	0.0050 U	0.005 U	0.005 U	0.000176 J	0.0007 U	
Cadmium (dissolved)	mg/L	0.0050 U	-	-	0.0010 J	0.0012 J	-	-	-	-	-	
Calcium	mg/L	-	80.9	230	153	167	60.5	5.47	0.717	2.6	0.439	
Chromium	mg/L	0.0057 J	**0.0156**	**0.0271**	**0.0731**	**0.0745**	**0.194**	**0.105**	**0.0454**	**0.0457**	**0.0167**	
Cobalt	mg/L	-	0.0023 J	0.0040 J	0.0070 J	0.0066 J	0.0060 J	0.0033 J	0.005 U	0.00696	0.005 U	
Copper	mg/L	0.0100 U	0.0100 U	0.0020 J	0.0018 J	0.0017 J	0.0100 U	0.025 U	0.025 U	0.0041	0.002 U	
Iron	mg/L	**2.37**	**1.42**	**0.939**	**1.63**	**1.04**	**5.94**	**2.47**	**1.06**	**11.6**	**3.08**	
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.0192 J	0.05 U	0.1 U	0.1 U	
Lead	mg/L	0.0013 J	0.0100 U	0.0015 J	0.0100 U	0.0100 U	0.0061 J	0.005 U	0.0042 J	0.00804	0.00179	
Magnesium	mg/L	-	36.7	90.5	66.8	73.1	24.7	2.87	0.692	5.21	1.28	
Manganese	mg/L	**0.211**	**0.239**	**6.17**	**5.24**	**4.60**	**2.36**	**0.532**	**0.0906**	**0.346**	**0.103**	
Manganese (dissolved)	mg/L	**0.180**	**0.137**	**5.81**	**4.23**	**4.30**	2.28 J	**0.296**	**0.0527**	**0.0337**	**0.0117**	
Mercury	mg/L	-	0.00004 J	0.00021 U	0.00002 J	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00020 U	0.00020 U	

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

	Location ID:	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32	MW-32
	Sample Name:	GW-020311-EAH-008	GW-051711-DJB-003	GW-070611-EAH-003	GW-101111-SAG-001	GW-042412-BCW-100	GW-103012-BCW-109	GW-041613-CRM-003	GW-013926-102313-SAG-004	GW-013926-042414-DWH-104	GW-013926-101414-SAG-004
	Sample Date:	2/3/2011	5/17/2011	7/6/2011	10/11/2011	4/24/2012	10/30/2012	4/16/2013	10/23/2013	4/24/2014	10/14/2014
	Performance Event:	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post-injection	8th Post-injection	9th Post-injection
Parameters	**Units**										
Volatile Organic Compounds											
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	1.0 U	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	0.020 U	0.019 U	0.020 U	0.020 U	0.021 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	1.0 U	-
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L										
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 UJ	50 UJ	50 U	10.0 U	10.0 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	25 J	13 J	5.9 J	25.0 U	25.0 U	25 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	4.0 J	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	22	9.6	10 J	11 J	4.5 J	1.7 J	10.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	4.8 J	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.4 J	1.5 J	7.5 J	5.0 UJ	0.45 J	0.76 J	0.63 J	0.38 J	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	5.8 J	10 UJ	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	8.2	5.0 U	5.0 UJ	5.0 UJ	0.64 J	2.7 J	3.3 J	1.7	3.6	2.9
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	7.1 J	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	**14**	6.7	5.0 UJ	0.90 J	2.5 J	2.9 J	3.3 J	2.2	3.0	1.3
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	**2000**	**2000**	13 J	120 J	**200**	**453**	**874**	**570**	**1200**	**870**
Toluene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	0.31 J	10.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	**13**	2.2 J	5.0 UJ	5.0 UJ	1.2 J	4.6 J	6.2 J	**3.4**	**6.8**	**5.5**
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 UJ	10 UJ	10 U	10.0 U	0.23 J	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 UJ	2.0 UJ	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Metals (Totals)											
Aluminum	mg/L	-	**7.99**	**2.74**	**1.46**	**0.661**	**1.3**	**1.29**	**5.4**	**0.749**	**6.66**
Antimony	mg/L	-	0.0024 J	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0026 J	0.01 U	0.01 U	0.00106 J	0.005 U	0.0024 J
Barium	mg/L	0.294	0.533	0.576	0.0462	0.0385	0.0609 J	0.066 J	0.175	0.075	0.202
Beryllium	mg/L	-	0.0012 J	0.0016 J	0.0013 J	0.0100 U	0.001 U	0.001 U	0.000842 J	0.001 U	0.000922 J
Cadmium	mg/L	0.0050 U	0.0050 U	0.0024 J	-	0.0050 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.00035 J
Cadmium (dissolved)	mg/L	0.0050 U	-	-	0.0017 J	-	-	-	-	-	-
Calcium	mg/L	-	90.1	517	415	65.8	14.3	3.72	4.37	3.05	4.43
Chromium	mg/L	**0.0427**	**0.0332**	**0.0638**	**0.216**	**0.143**	**0.106**	**0.078**	**0.0417**	**0.0234**	**0.0293**
Cobalt	mg/L	-	0.0049 J	0.0012 J	0.0033 J	0.0012 J	0.0026 J	0.005 U	0.00459 J	0.005 U	0.00389 J
Copper	mg/L	0.0071 J	0.0088 J	0.0041 J	0.0031 J	0.0100 U	0.025 U	0.025 U	0.00555	0.002 U	0.00804
Iron	mg/L	**11.4**	**13.1**	**2.19**	**0.371**	**0.817**	**1.8**	**2.05**	**8.45**	**1.33**	**9.36**
Iron (dissolved)	mg/L	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.02 J	0.05 U	0.00927 J	0.1 U	**0.217**
Lead	mg/L	0.0043 J	0.0053 J	0.0012 J	0.0100 U	0.0023 J	0.005 U	0.005 U	0.0047	0.00105	0.00454
Magnesium	mg/L	-	35.3	161	121	22.6	4.4	1.53	3.12	1.08	2.31
Manganese	mg/L	**0.175**	**0.143**	**0.0375**	**0.0756**	**0.0299**	**0.0709**	**0.0297**	**0.115**	**0.0202**	**0.0996**
Manganese (dissolved)	mg/L	**0.0368**	0.0150 U	0.0009 J	**0.0545**	0.0184 J	**0.0223**	**0.0068**	**0.00885**	**0.00524**	**0.0233**
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00004 J	0.00020 U	0.00077

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

Location ID:		MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39	MW-39
Sample Name:		GW-021611-DJB-216	GW-021611-DJB-217	GW-051711-DJB-002	GW-070611-DJB-103	GW-101111-DJB-102	GW-042412-BCW-101	GW-103012-BCW-106	GW-103012-BCW-107	GW-041613-CRM-004	GW-041613-CRM-005	GW-013926-102313-SAG-
Sample Date:		2/16/2011	2/16/2011	5/17/2011	7/6/2011	10/11/2011	4/24/2012	10/30/2012	10/30/2012	4/16/2013	4/16/2013	10/24/2013
Performance Event:		Pre-injection	Pre-injection	1st Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	5th Post-injection	6th Post-injection	6th Post-injection	7th Post-injection
Parameters	**Units**		Duplicate						Duplicate		Duplicate	
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.021 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
1,4-Dioxane	ug/L											
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U
Acetone	ug/L	50 U	50 U	50 U	50 U	16 J	11 J	25.0 U	10.1 J	25.0 U	25.0 U	12 J
Benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Bromoform	ug/L	**60**	**57**	**220**	**220**	**170**	**150**	**248**	**239**	**132**	**140**	**73**
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.87 J	0.68 J	0.80 J	0.50 J	0.45 J	0.73 J
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	0.22 J	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.87 J	1.1 J	0.48 J	0.45 J	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.94 J	1.3 J	10.0 U	10.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	9.1	9.0	11	11	5.6	5.4	1.6 J	1.9 J	1.4 J	1.4 J	0.52 J
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Tetrachloroethene	ug/L	**330**	**360**	**220**	**210**	**200**	**130**	**56.0**	**62.8**	**168**	**136**	**46**
Toluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.28 J	10.0 U	10.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.0 U
Trichloroethene	ug/L	3.6 J	3.2 J	5.0 U	1.5 J	5.0 U	5.0 U	10.0 U	10.0 U	0.54 J	10.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**12.9**	**14.9**	10.0 U	10.0 U	1.0 U
Metals (Totals)												
Aluminum	mg/L	-	-	**1.33**	**0.521**	**0.525**	**1.52**	**0.732**	**0.707**	**1.52**	**1.16**	**6.08**
Antimony	mg/L	-	-	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	0.000392 J
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0023 J	0.01 U	0.01 U	0.01 U	0.01 U	0.000373 J
Barium	mg/L	0.193	0.190	0.345	0.687	0.795	0.393	0.172 J	0.162 J	0.215	0.216	0.256
Beryllium	mg/L	-	-	0.0004 J	0.0007 J	0.0008 J	0.0100 U	0.00053 J	0.00052 J	0.001 U	0.001 U	0.00116
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.0002 J	-	0.0050 U	0.005 U	0.005 U	0.005 U	0.005 U	0.000404 J
Cadmium (dissolved)	mg/L	0.0001 J	0.0050 U	-	-	0.0050 U	-	-	-	-	-	-
Calcium	mg/L	-	-	1.80	2.52	2.91	1.56	**1.66**	**1.58**	**1.73**	**2**	**2.27**
Chromium	mg/L	0.0008 J	0.0009 J	0.0013 J	0.0020 J	0.0032 J	0.0063 J	0.0082 J	**0.0111**	0.007 J	0.0064 J	**0.0116**
Cobalt	mg/L	-	-	0.0073 J	0.0129 J	0.0105 J	0.0072 J	0.0049 J	0.005	0.004 J	0.0038 J	0.0083
Copper	mg/L	0.0010 J	0.0488	0.0012 J	0.0100 U	0.0100 U	0.0100 U	0.025 U	0.025 U	0.025 U	0.025 U	0.00319
Iron	mg/L	-	-	**0.835**	**0.274**	**0.333**	**1.33**	**0.573**	**0.505**	**1.26**	**0.927**	**6.79**
Iron (dissolved)	mg/L	-	-	0.100 U	0.100 U	0.100 U	0.100 U	**0.0767**	0.05 U	0.05 U	0.018 J	0.0219 J
Lead	mg/L	0.0100 U	0.0100 U	0.0027 J	0.0006 J	0.0100 U	0.0050 J	0.005 U	0.005 U	0.0047 J	0.0048 J	0.0079
Magnesium	mg/L	-	-	4.03	7.70	**8.95**	**6.55**	**5.19**	**5.12**	**4.74**	**4.79**	**6.93**
Manganese	mg/L	-	-	**0.0939**	**0.0962**	**0.0538**	**0.0243**	**0.0178**	**0.0181**	**0.026**	**0.0227**	**0.102**
Manganese (dissolved)	mg/L	-	-	**0.0855**	**0.0962**	**0.0358**	0.0088 J	0.0285 J	0.0115 J	**0.0113**	**0.012**	**0.0133**
Mercury	mg/L	-	-	0.00020 U	0.00020 U	0.00003 J	0.00020 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.00005 J

Attachment C1

Summaries of Historical Analytical Results
ISCO Performance Groundwater Monitoring
Aqua-Tech Site
Greer, South Carolina

Location ID:		MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	MW-40	
Sample Name:		GW-021611-DJB-218	GW-051711-DJB-001	GW-070611-DJB-101	GW-070611-DJB-102	GW-101111-SAG-004	GW-042412-BCW-102	GW-102912-BCW-105	GW-041613-EAH-101	GW-013926-102413-DJB-102	GW-013926-102413-DJB-103	GW-013926
Sample Date:		2/16/2011	5/17/2011	7/6/2011	7/6/2011	10/11/2011	4/24/2012	10/29/2012	4/16/2013	10/24/2013	10/24/2013	4/
Performance Event:		Pre-injection	1st Post-injection	2nd Post-injection	2nd Post-injection	3rd Post-injection	4th Post-injection	5th Post-injection	6th Post-injection	7th Post-injection	7th Post-injection	8th P
Parameters	**Units**				Duplicate						Duplicate	
Volatile Organic Compounds												
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.021 U	0.021 U	(
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	-	-	-	-	-	-	-	-	-	-	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L											
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	
Acetone	ug/L	50 U	50 U	50 U	50 U	50 U	4.0 J	25.0 U	25.0 U	10 J	20 U	
Benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.31 J	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	1.2 J	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	5.0 U	3.2 J	5.0 U	3.1 J	5.0 U	2.3 J	10.0 U	2.0 J	1.0 U	1.0 U	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	**71**	**54**	**77**	**79**	**64**	**42**	**29.3**	**47.1**	**40**	**37**	
Toluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	5.0 U	5.0 U	1.5 J	1.7 J	5.0 U	0.98 J	10.0 U	0.73 J	1.0 U	1.0 U	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U	5.0 U	5.0 U	
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	
Metals (Totals)												
Aluminum	mg/L	-	**6.04**	**3.48**	**3.18**	**0.810**	**1.67**	**1.16**	**2.52**	0.399 J	0.223 J	
Antimony	mg/L	-	0.0020 J	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.005 U	0.005 U	0.005 U	0.005 U	(
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.0036 J	0.003 J	0.004 J	0.005 U	0.005 U	(
Barium	mg/L	0.198	0.230	0.257	0.263	0.247	0.231	0.226	0.176 J	0.225	0.217	
Beryllium	mg/L	-	0.0005 J	0.0004 J	0.0004 J	0.0003 J	0.0100 U	0.001 U	0.001 U	0.000237 J	0.000276 J	(
Cadmium	mg/L	0.0003 J	0.0016 J	0.0006 J	0.0006 J	-	0.0050 U	0.00058 J	0.0014 J	0.00068 J	0.000728	0
Cadmium (dissolved)	mg/L	0.0006 J	-	-	-	0.0010 J	-	-	-	-	-	
Calcium	mg/L	-	1.79	1.49	1.57	1.47	1.36	1.34	1.56	1.35	1.29	
Chromium	mg/L	0.0017 J	0.0018 J	0.0012 J	0.0012 J	0.0010 J	0.0100 U	0.01 U	0.01 U	0.005 U	0.005 U	(
Cobalt	mg/L	-	0.0401	0.0379	0.0400	0.0407	0.037	0.0346	0.0399	0.031	0.0284	
Copper	mg/L	0.0010 J	0.0019 J	0.0011 J	0.0100 U	0.0009 J	0.0100 U	0.025 U	0.025 U	0.000265 J	0.000296 J	(
Iron	mg/L	-	**2.79**	**2.06**	**2.11**	**1.02**	**1.48**	**0.796**	**2.37**	**0.196**	**0.196**	
Iron (dissolved)	mg/L	-	**0.620**	**0.169**	**0.188**	0.0414 J	**0.147**	0.0171 J	**0.055**	0.0457 J	0.0548 J	
Lead	mg/L	0.0100 U	0.0136	0.0100	0.0094 J	0.0100 U	0.0068 J	0.005 U	0.007	0.00183	0.00177	(
Magnesium	mg/L	-	3.61	3.67	3.86	3.78	3.47	3.35	3.24	3.15	3.03	
Manganese	mg/L	-	**1.53**	**1.22**	**1.29**	**1.32**	**1.21**	**1.08**	**1.74**	**0.965**	**0.883**	
Manganese (dissolved)	mg/L	-	**1.58**	**1.22**	**1.39**	**1.31**	1.33 J	**1.01**	**1.4**	**0.942**	**1.02**	
Mercury	mg/L	-	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.00020 U	0.0002 U	0.0002 U	0.00020 U	0.00020 U	0.

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-3 GW-021110-EAH-023 2/11/2011	MW-3 GW-101211-SAG-009 10/12/2011	MW-3 GW-042512-AWY-005 4/25/2012	MW-3 GW-102412-DJB-001 10/24/2012	MW-3 GW-041713-EAH-102 4/17/2013	MW-3 GW-013926-102413-DJB-106 10/24/2013	MW-3 GW-013926-050114-DJB-010 5/1/2014
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	90	260	200	74.4	54.9	54	29
1,1,2,2-Tetrachloroethane	ug/L	11	4.0 J	6.5	6.4 J	11.8	1.4	1.0 U
1,1,2-Trichloroethane	ug/L	5.4	6.6	6.9	5.6 J	7.6 J	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	69	84	79	45.8	33.1	23	7.0
1,1-Dichloroethene	ug/L	15	21	18	8.5 J	6.1 J	4.9	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	0.64 J	1.4 J	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	4.2 J	1.8 J	1.9 J	1.5 J	2.5 J	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	6.0	2.7 J	3.6 J	3.1 J	3.6 J	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	2.4 J	1.2 J	0.98 J	0.74 J	1.4 J	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	3.0 J	1.3 J	1.3 J	0.92 J	1.5 J	1.0 U	1.0 U
1,4-Dioxane	ug/L		-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	50 U	10.0 U	10.0 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	10.6 J	25.0 U	20 U	20 U
Benzene	ug/L	11	4.6 J	5.6	3.7 J	5.9 J	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	10	3.7 J	4.6 J	3.6 J	6.4 J	1.0 U	1.0 U
Chloroethane	ug/L	5.6 J	2.8 J	4.1 J	4.6 J	4.2 J	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	7.0	5.0 J	6.2	3.3 J	2.7 J	1.0	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	310	130	190	129	164	**21**	5.4
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	1.4 J	1.7 J	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.45 J	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	170	440	450	133	121	190	98
Toluene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.28 J	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.6	5.0 U	3.4 J	3.0 J	3.1 J	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	49	99	110	41.9	63.5	31	19
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	98	25	36	26.7	30.1	2.2	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.67 J	1.0 U	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
Sample ID:		GW-021110-EAH-023	GW-101211-SAG-009	GW-042512-AWY-005	GW-102412-DJB-001	GW-041713-EAH-102	GW-013926-102413-DJB-106	GW-013926-050114-DJB-010
Sample Date:		2/11/2011	10/12/2011	4/25/2012	10/24/2012	4/17/2013	10/24/2013	5/1/2014
Parameters	**Units**							
Metals								
Arsenic	mg/L	-	0.0500 U	0.0500 U	0.01 U	0.0034 J	0.00121 J	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	-	-	-	-
Barium	mg/L	-	0.242	0.249	0.201	0.358	0.178	0.17
Barium (dissolved)	mg/L	-	-	-	-	-	-	-
Cadmium	mg/L	-	0.0050 U	0.0050 U	0.005 U	0.005 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	-
Chromium	mg/L	-	0.0011 J	0.0012 J	0.01 U	0.0032 J	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-	-
Copper	mg/L	-	0.0100 U	0.0100 U	0.0036 J	0.0021 J	0.000559 J	0.002 U
Copper (dissolved)	mg/L	-	-	-	-	-	-	-
Iron	mg/L	17.3	12.9	9.11	7.37	13.8	3.16	3.99
Iron (dissolved)	mg/L	12.9	-	-	-	-	-	-
Lead	mg/L	-	0.0100 U	0.0100 U	0.005 U	0.005 U	0.000199 J	0.00562
Lead (dissolved)	mg/L	-	-	-	-	-	-	-
Manganese	mg/L	10.9 J	9.35	5.63	4.75	4.22	7.42	8.04
Manganese (dissolved)	mg/L	10.0 J	-	-	-	-	-	-
Selenium	mg/L	-	0.0083 J	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	-	-	-	-		-	-
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9 U	1.2 J	4.1 J	9 U	9 U
Ethene	ug/L	7 U	7 U	7 U	3.6 J	7.7	7 U	7 U
Methane	ug/L	1400	99	85	90.5	315	5	4 U
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	42.9	27.8	45.2	44.5	43.8	45.1	27.3
Ammonia	mg/L	-	0.188 J	0.200 U	0.15 J	0.10 U	0.101	0.095
Chloride	mg/L	58	44	38	-	37	22	14
Ferrous iron	mg/L	12.6	-	-	26	-	-	-
Nitrate (as N)	mg/L	0.25 U	2.5 U	0.057 J	0.25 U	0.25 UJ	4.1	4.0
Orthophosphate	mg/L	-	0.0100 U	0.0383	0.36	0.25 U	0.00376 J	0.0100 U
Sulfate	mg/L	18	9.6 J	3.1	3.1	1.6	4.8	18
Total organic carbon (TOC)	mg/L	4.12 U	4.83	3.35	9.7	14.1	6.40	4.77
Field Parameters								
pH	S.U	5.32	5.69	5.32	5.94	5.68	4.95	5.81
DO	mg/L	0.52	0.68	0.65	2.55	1.31	0.0	0.83
ORP	mv	117	90	61	83	67	242	150

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using smaller reporitng limts

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample Location:		MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample ID:		GW-013926-041316-MRB-010	GW-020911-DJB-208	GW-101211-DJB-107	GW-042612-AWY-013	GW-102512-DJB-007	GW-041713-DJB-203	GW-013926-102313-SAG-002
Sample Date:		4/13/2016	2/9/2011	10/12/2011	4/26/2012	10/25/2012	4/17/2013	10/23/2013
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	24	5.0 U	5.0 U	5.0 U	1.3 J	10.0 U	1.7
1,1,2,2-Tetrachloroethane	ug/L	2.0	5.0 U	5.0 U	5.0 U	4.0 J	10.0 U	7.2
1,1,2-Trichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.6	4.9 J	4.0 J	1.7 J	23.9	2.3 J	34
1,1-Dichloroethene	ug/L	1.7 J	3.1 J	3.0 J	1.5 J	12.0 J	1.3 J	16
1,2,4-Trichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	0.86 J
1,2-Dichloroethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	1.5 J	10.0 U	2.2
1,2-Dichloropropane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	0.96 J
1,4-Dioxane	ug/L	150 U	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	50 U	50 U	50 U	20.0 U	10.0 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	20.0 U	10.0 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	20.0 U	10.0 U	10 U
Acetone	ug/L	20 U	50 U	50 U	50 U	50.0 U	25.0 U	20 U
Benzene	ug/L	1.0 U	5.0 U	0.41 J	5.0 U	5.4 J	0.26 J	16
Bromodichloromethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Bromoform	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	0.39 J
Chloroethane	ug/L	1.0 U	10 U	10 U	10 U	9.4 J	10.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	0.97 J	5.0 U	5.0 U	5.0 U	3.8 J	10.0 U	5.9
Chloromethane (Methyl chloride)	ug/L	1.0 U	10 U	10 U	10 U	20.0 U	10.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	12	33	30	8.8	208	14.9	270
cis-1,3-Dichloropropene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	10 U	10 U	10 U	20.0 U	10.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	2.3 J	10.0 U	5.0 U
Styrene	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Tetrachloroethene	ug/L	83	11	7.5	4.8 J	35.7	6.4 J	66
Toluene	ug/L	1.0 U	5.0 U	31	5.0 U	20.0 U	10.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	0.75 J
trans-1,3-Dichloropropene	ug/L	2.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	2.0 U
Trichloroethene	ug/L	15	22	19	8.3	104	11.5	180
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	10 U	10 U	10 U	3.9 J	0.35 J	6.2
Vinyl chloride	ug/L	1.0 U	0.96 J	2.1	0.83 J	2.1 J	10.0 U	2.6
Xylenes (total)	ug/L	1.0 U	5.0 U	5.0 U	5.0 U	20.0 U	10.0 U	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-3 GW-013926-041316-MRB-010 4/13/2016	MW-4 GW-020911-DJB-208 2/9/2011	MW-4 GW-101211-DJB-107 10/12/2011	MW-4 GW-042612-AWY-013 4/26/2012	MW-4 GW-102512-DJB-007 10/25/2012	MW-4 GW-041713-DJB-203 4/17/2013	MW-4 GW-013926-102313-SAG-002 10/23/2013
Metals								
Arsenic	mg/L	0.00235 J	0.0500 U	0.0500 U	0.0500 U	0.005 U	0.01 U	0.005 U
Arsenic (dissolved)	mg/L	-	0.0500 U	-	-	-	-	-
Barium	mg/L	0.278	0.171	0.179	0.115	0.194	0.153 J	0.165
Barium (dissolved)	mg/L	-	0.148	-	-	-	-	-
Cadmium	mg/L	0.000496 J	0.0050 U	0.0050 U	0.0050 U	0.001 U	0.005 U	0.000219 J
Cadmium (dissolved)	mg/L	-	0.0050 U	-	-	-	-	-
Chromium	mg/L	0.005 U	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.01 U	0.005 U
Chromium Total (dissolved)	mg/L	-	0.0100 U	-	-	-	-	-
Copper	mg/L	0.00236	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.025 U	0.000388 J
Copper (dissolved)	mg/L	-	0.0100 U	-	-	-	-	-
Iron	mg/L	6.69	0.157	0.100 U	0.0427 J	0.05 U	0.039 J	0.1 U
Iron (dissolved)	mg/L	--	0.100 U	-	-	-	-	-
Lead	mg/L	0.00102	0.0100 U	0.0100 U	0.0100 U	0.005 U	0.005 U	0.001 U
Lead (dissolved)	mg/L	-	0.0100 U	-	-	-	-	-
Manganese	mg/L	--	2.51	2.81	1.75	3.89	1.83	3.71
Manganese (dissolved)	mg/L	-	2.26	-	-	-	-	-
Selenium	mg/L	0.000572 J	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U
Selenium (dissolved)	mg/L		0.0200 U	-	-	-		-
Dissolved Gas								
Ethane	ug/L	9.0 U	9 U	9 U	9 U	6.2 U	6.2 U	9 U
Ethene	ug/L	7.0 U	7 U	7 U	7 U	6.2 U	6.2 U	7 U
Methane	ug/L	4.0 U	4 U	21	180	49.6	10.2	200
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	22.0	37.9	34.1	28.8	41.0	29.0	45.5
Ammonia	mg/L	0.020 U	-	0.056 J	0.200 U	0.10 U	0.10 U	0.041
Chloride	mg/L	18	8.5	8.7	5.9	-	5.7	17
Ferrous iron	mg/L	-	0.100 UJ	-	-	14	-	-
Nitrate (as N)	mg/L	6.1	6.8	9.4	4.0	5.6 J	7.6 J	3.2
Orthophosphate	mg/L	0.00986 J	-	0.0389	0.0349	0.25 U	0.25 U	0.0313
Sulfate	mg/L	7.7	11	15	9.4	13	10	9.1
Total organic carbon (TOC)	mg/L	4.72	5.00 U	2.89	0.984 J	8.0 J	6.1	0.621 J
Field Parameters								
pH	S.U	5.39	4.96	5.63	5.16	5.63	5.84	4.89
DO	mg/L	2.92	2.5	0.36	0.95	0.0	0.00	0.63
ORP	mv	275	330	101	210	206	266	318

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using sm

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-4 GW-013926-102915-DJB-108 10/29/2015	MW-4 GW-013926-041416-SAG-110 4/14/2016	MW-11 GW-021011-DJB-210 2/10/2011	MW-11 GW-101211-SAG-006 10/12/2011	MW-11 GW-042512-AWY-007 4/25/2012	MW-11 GW-102912-DJB-009 10/29/2012	MW-11 GW-041713-EAH-103 4/17/2013
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.4	3.5	4.4 J	3.4 J	1.8 J	1.2 J	1.0 J
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1-Dichloroethane	ug/L	6.9	9.6	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,1-Dichloroethene	ug/L	3.7	5.2	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
1,4-Dioxane	ug/L	150 U	150 U	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	50 U	50 U	50 U	10.0 U	10.0 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10.0 U	10.0 U
Acetone	ug/L	20 U	20 U	50 U	50 U	50 U	25.0 U	25.0 U
Benzene	ug/L	1.4	2.9	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromoform	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chloroethane	ug/L	1.0 U	1.0 U	10 U	10 U	10 U	10.0 U	10.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.8	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	10 U	10 U	10 U	10.0 U	10.0 U
cis-1,2-Dichloroethene	ug/L	55	79	14	9.6	8.6	7.4 J	7.9 J
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	10 U	10 U	10 U	10.0 U	10.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Styrene	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Tetrachloroethene	ug/L	16	23	16	7.2	17	13.7	9.7 J
Toluene	ug/L	1.0 U	1.0 U	41	5.0 U	5.0 U	10.0 U	10.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Trichloroethene	ug/L	42	72	34	19	25	15.9	18.5
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	2.1 J	10 U	10 U	10 U	10.0 U	10.0 U
Vinyl chloride	ug/L	1.0 U	1.5	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-4 GW-013926-102915-DJB-108 10/29/2015	MW-4 GW-013926-041416-SAG-110 4/14/2016	MW-11 GW-021011-DJB-210 2/10/2011	MW-11 GW-101211-SAG-006 10/12/2011	MW-11 GW-042512-AWY-007 4/25/2012	MW-11 GW-102912-DJB-009 10/29/2012	MW-11 GW-041713-EAH-103 4/17/2013
Metals								
Arsenic	mg/L	0.005 U	0.000468 J	0.0500 U	0.0500 U	0.0500 U	0.01 U	0.01 U
Arsenic (dissolved)	mg/L	--	-	0.0500 U	-	-	-	-
Barium	mg/L	0.173	0.171	0.119	0.110	0.107	0.0915 J	0.103 J
Barium (dissolved)	mg/L	--	-	0.112	-	-	-	-
Cadmium	mg/L	0.000165 J	0.0007 U	0.0005 J	0.0002 J	0.0004 J	0.005 U	0.005 U
Cadmium (dissolved)	mg/L	--	-	0.0050 U	-	-	-	-
Chromium	mg/L	0.000486 J	0.005 U	0.0100 U	0.0100 U	0.0100 U	0.01 U	0.01 U
Chromium Total (dissolved)	mg/L	--	-	0.0100 U	-	-	-	-
Copper	mg/L	0.00181 J	0.002 U	0.0100 U	0.0100 U	0.0100 U	0.025 U	0.025 U
Copper (dissolved)	mg/L	--	-	0.0100 U	-	-	-	-
Iron	mg/L	0.177	0.1 U	0.117	0.100 U	0.0431 J	0.47	0.706
Iron (dissolved)	mg/L	--	--	0.100 U	-	-	-	-
Lead	mg/L	0.000552 J	0.000144 J	0.0100 U	0.0014 J	0.0100 U	0.005 U	0.005 U
Lead (dissolved)	mg/L	--	-	0.0100 U	-	-	-	-
Manganese	mg/L	3.28 J	--	1.03	0.867	0.852	0.87	0.895
Manganese (dissolved)	mg/L	--	-	1.02	-	-	-	-
Selenium	mg/L	0.00111 J	0.000875 J	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U
Selenium (dissolved)	mg/L	--		0.0200 U	-	-	-	
Dissolved Gas								
Ethane	ug/L	9.0 U	9.0 U	9 U	9 U	9 U	6.2 U	6.2 U
Ethene	ug/L	7.0 U	7.0 U	7 U	7 U	7 U	6.2 U	6.2 U
Methane	ug/L	11	160	4 U	4 U	4 U	14.4	31.0
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	50.0	36.0	8.7 J	8.9 J	10.0 U	6.7	7.5
Ammonia	mg/L	0.041	0.020 U	0.200 U	0.030 J	0.200 U	0.10 U	0.10 U
Chloride	mg/L	9.0	12	16	12	12	-	13
Ferrous iron	mg/L	--	-	0.100 UJ	-	-	11.8475	-
Nitrate (as N)	mg/L	4.8	4.0	0.65	0.47	0.45	0.45	0.40 J
Orthophosphate	mg/L	0.0315	0.0240	0.00584 J	0.0100 U	0.0118 U	0.25 U	0.25 U
Sulfate	mg/L	13	13	1.0 U	1.0 U	1.0 U	1 U	1.0 U
Total organic carbon (TOC)	mg/L	1.00 U	2.32	3.36	3.43	4.51	3.0	5.4
Field Parameters								
pH	S.U	5.55	5.36	5.21	5.29	4.88	5.55	4.57
DO	mg/L	0	4.10	9.02	4.77	4.03	3.47	1.82
ORP	mv	233	293	325	305	206	171	248

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using sm

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-11	MW-11	MW-11	MW-12	MW-12	MW-12	MW-1.
Sample ID:		GW-013926-031815-SAG-009	GW-013926-102815-SAG-008	GW-013926-041316-MRB-006	GW-021511-DJB-214	GW-021511-DJB-215	GW-101211-SAG-010	GW-042412-B
Sample Date:		3/18/2015	10/28/2015	4/13/2016	2/15/2011	2/15/2011	10/12/2011	4/24/20
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.5 J	1.5 J
1,1,2,2-Tetrachloroethane	ug/L	2.0	1.0 U	3.0	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	3.2 J	3.3 J	3.0 J	2.7 J
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	1.7 J	1.8 J
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	ug/L	-	150 U	150 U	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	50 U	50 U	16 J	50 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	50 U	50 U	50 U	50 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U	1.7 J	10 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	13	6.4	8.2	180	190	170	200
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	10 U	10 U	10 U	10 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	12	7.9	11	62	59	50	36
Toluene	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	1.5 J
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	35	14	28	390	390	400	390
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	0.96 J
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	2.1	2.1	1.6 J	2.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-11 GW-013926-031815-SAG-009 3/18/2015	MW-11 GW-013926-102815-SAG-008 10/28/2015	MW-11 GW-013926-041316-MRB-006 4/13/2016	MW-12 GW-021511-DJB-214 2/15/2011	MW-12 GW-021511-DJB-215 2/15/2011	MW-12 GW-101211-SAG-010 10/12/2011	MW-1 GW-042412-B 4/24/20
Metals								
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	-	-	0.0500 U	0.0035
Arsenic (dissolved)	mg/L	-	--	-	-	-	-	-
Barium	mg/L	0.078	0.178	0.0655	-	-	0.108	0.095
Barium (dissolved)	mg/L	-	--	-	-	-	-	-
Cadmium	mg/L	0.000447 J	0.000616 J	0.000286 J	-	-	0.0050 U	0.0050
Cadmium (dissolved)	mg/L	-	--	-	-	-	-	-
Chromium	mg/L	0.000342 J	0.00526	0.005 U	-	-	0.0026 J	0.0100
Chromium Total (dissolved)	mg/L	-	--	-	-	-	-	-
Copper	mg/L	0.00128 J	0.00926	0.00283	-	-	0.0011 J	0.0100
Copper (dissolved)	mg/L	-	--	-	-	-	-	-
Iron	mg/L	0.154	5.1	0.308	0.156	0.100 U	0.276 U	0.235
Iron (dissolved)	mg/L	--	--	--	0.100 U	0.100 U	-	-
Lead	mg/L	0.001 U	0.0063	0.000907 J	-	-	0.0100 U	0.0100
Lead (dissolved)	mg/L	-	--	-	-	-	-	-
Manganese	mg/L	0.912	1.82 J	--	0.184	0.186	0.134	0.073
Manganese (dissolved)	mg/L	--	--	-	0.178	0.180	-	-
Selenium	mg/L	0.005 U	0.005 U	0.000368 J	-	-	0.0200 U	0.0200
Selenium (dissolved)	mg/L		--		-	-	-	-
Dissolved Gas								
Ethane	ug/L	9 U	9.0 U	9.0 U	9 U	9 U	9 U	9 U
Ethene	ug/L	7 U	7.0 U	7.0 U	7 U	7 U	7 U	7 U
Methane	ug/L	15	9.6	31	4 U	4 U	4 U	4 U
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	13.0	17.0	5.00	15.5	14.5	11.6	11.5
Ammonia	mg/L	0.020 U	0.023	0.211	-	-	0.049 J	0.200
Chloride	mg/L	8.6	7.7	7.1	10	10	8.7	8.6
Ferrous iron	mg/L	-	--	-	0.100 U	0.100 U	-	-
Nitrate (as N)	mg/L	0.34	0.28	0.26	0.75	0.76	0.74	0.73
Orthophosphate	mg/L	0.00682 J	0.0126 U	0.00856 J	-	-	0.0219	0.048
Sulfate	mg/L	9.5	2.8	0.39 J	2.3	3.8	2.1	2.0
Total organic carbon (TOC)	mg/L	5.00 U	3.16	7.48	5.00 U	1.00 U	2.87	0.699
Field Parameters								
pH	S.U	5.32	5.64	4.57	4.67	4.67	5.42	5.37
DO	mg/L	3.41	3.84	7.0	3.23	3.23	3.95	6.0
ORP	mv	211	197	261	356	356	206	238

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using sm

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-12	MW-12	MW-12	MW-12	MW-14	MW-14	M
Sample Location:		MW-12	MW-12	MW-12	MW-12	MW-14	MW-14	M
Sample ID:		GW-013926-101514-DJB-108	GW-013926-031915-SAG-012	GW-013926-102815-DJB-106	GW-013926-041316-SAG-107	GW-020911-SAG-119	GW-101311-SAG-012	GW-042
Sample Date:		10/15/2014	3/19/2015	10/28/2015	4/13/2016	2/9/2011	10/13/2011	4/2
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.020 U	0.020 U	5.0 U	5.0 U	5
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
1,4-Dioxane	ug/L	-	-	150 U	150 U	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	50 U	50 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	
Acetone	ug/L	20 U	20 U	20 U	20 U	50 U	50 U	
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	
cis-1,2-Dichloroethene	ug/L	38	30	25	9.4	5.0 U	5.0 U	5
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Tetrachloroethene	ug/L	59	57	34	47	5.0 U	5.0 U	5
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5
Trichloroethene	ug/L	98	95	68	40	5.0 U	5.0 U	5
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2
Xylenes (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-12	MW-12	MW-12	MW-12	MW-14	MW-14	M
Sample Location:		MW-12	MW-12	MW-12	MW-12	MW-14	MW-14	M
Sample ID:		GW-013926-101514-DJB-108	GW-013926-031915-SAG-012	GW-013926-102815-DJB-106	GW-013926-041316-SAG-107	GW-020911-SAG-119	GW-101311-SAG-012	GW-042
Sample Date:		10/15/2014	3/19/2015	10/28/2015	4/13/2016	2/9/2011	10/13/2011	4/2
Metals								
Arsenic	mg/L	0.005 U	0.000185 J	0.005 U	0.000638 J	0.0500 U	0.0500 U	0.(
Arsenic (dissolved)	mg/L	-	-	--	-	0.0500 U	-	
Barium	mg/L	0.112	0.0943	0.106	0.171	0.0443	0.0487	0
Barium (dissolved)	mg/L	-	-	--	-	0.0383	-	
Cadmium	mg/L	0.0007 U	0.0007 U	0.000146 J	0.000254 J	0.0050 U	0.0050 U	0.(
Cadmium (dissolved)	mg/L	-	-	--	-	0.0050 U	-	
Chromium	mg/L	0.00514	0.00538	0.00298 J	0.00529	0.0100 U	0.0015 J	0.(
Chromium Total (dissolved)	mg/L	-	-	--	-	0.0100 U	-	
Copper	mg/L	0.005 U	0.000629 J	0.000843 J	0.002 U	0.0009 J	0.0100 U	0.(
Copper (dissolved)	mg/L	-	-	--	-	0.0100 U	-	
Iron	mg/L	0.164	0.0121 J	0.144	0.0518 J	0.332	1.21	
Iron (dissolved)	mg/L	-	--	--	--	0.100 U	-	
Lead	mg/L	0.001 U	0.001 U	0.000376 J	0.000278 J	0.0100 U	0.0008 J	0.(
Lead (dissolved)	mg/L	-	-	--	-	0.0100 U	-	
Manganese	mg/L	0.109	0.0712	0.0613 J	--	0.0039 J	0.0090 J	0
Manganese (dissolved)	mg/L	-	--	--	-	0.0063 J	-	
Selenium	mg/L	0.005 UJ	0.005 U	0.00155 J	0.00122 J	0.0200 U	0.0200 U	0.(
Selenium (dissolved)	mg/L			--		0.0200 U	-	
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9.0 U	9.0 U	9 U	9 U	
Ethene	ug/L	7 U	7 U	7.0 U	7.0 U	7 U	7 U	
Methane	ug/L	4 U	4 U	5.0 U	1.8 J	7	4 U	
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	15.9	9.00	9.00	7.00	11.9	10.0 U	
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U	-	0.020 J	0.
Chloride	mg/L	12	8.8	7.9	14	5.8	2.3	
Ferrous iron	mg/L	-	-	--	-	0.100 UJ	-	
Nitrate (as N)	mg/L	1.3	1.3	1.2	3.2	1.3	1.4	
Orthophosphate	mg/L	0.0363	0.0268	0.0279	0.0208	-	0.0171	0
Sulfate	mg/L	2.3	2.8	2.7	2.0	14	16	
Total organic carbon (TOC)	mg/L	1.31	1.00 U	1.00 U	1.46	1.00 U	0.565 J	1
Field Parameters								
pH	S.U	5.44	5.15	4.5	4.64	4.94	5.45	
DO	mg/L	2.78	2.23	2.66	0.0	6.5	5.14	
ORP	mv	218	229	324	375	455	290	

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using sm

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
Sample Location:		MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
Sample ID:		GW-013926-042414-DJB-006	GW-013926-101514-DJB-104	GW-013926-101514-DJB-105	GW-013926-031715-DJB-101	GW-013926-102815-DJB-103	GW-013926-041316-SA
Sample Date:		4/24/2014	10/15/2014	10/15/2014	3/17/2015	10/28/2015	4/13/2016
		Duplicate		Duplicate			
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.020 U	0.021 U	0.021 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	150 U	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

	Sample Location:	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
	Sample ID:	GW-013926-042414-DJB-006	GW-013926-101514-DJB-104	GW-013926-101514-DJB-105	GW-013926-031715-DJB-101	GW-013926-102815-DJB-103	GW-013926-041316-SA
	Sample Date:	4/24/2014	10/15/2014	10/15/2014	3/17/2015	10/28/2015	4/13/2016
Parameters	**Units**	Duplicate		Duplicate			
Metals							
Arsenic	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.00203 J	0.000421 J
Arsenic (dissolved)	mg/L	-	-	-	-	--	-
Barium	mg/L	0.0391	0.0434	0.0401	0.0437	0.0446	0.0488
Barium (dissolved)	mg/L	-	-	-	-	--	-
Cadmium	mg/L	0.0007 U	0.0007 U	0.0007 U	0.0007 U	0.000365 J	0.000188 J
Cadmium (dissolved)	mg/L	-	-	-	-	--	-
Chromium	mg/L	0.005 U	0.00115 J	0.000706 J	0.000522 J	0.00123 J	0.005 U
Chromium Total (dissolved)	mg/L	-	-	-	-	--	-
Copper	mg/L	0.002 U	0.005 U	0.005 U	0.0032	0.00167 J	0.002 U
Copper (dissolved)	mg/L	-	-	-	-	--	-
Iron	mg/L	0.145	0.705 J	0.267 J	0.2	0.622	0.465
Iron (dissolved)	mg/L	-	-	-	--	--	--
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.000313 J	0.000864 J	0.000514 J
Lead (dissolved)	mg/L	-	-	-	-	--	-
Manganese	mg/L	0.005 U	0.00598	0.005 U	0.005 U	0.00566 J	--
Manganese (dissolved)	mg/L	-	-	-	--	--	-
Selenium	mg/L	0.005 U	0.000779 J	0.000742 J	0.000786 J	0.00138 J	0.00153 J
Selenium (dissolved)	mg/L	-				--	
Dissolved Gas							
Ethane	ug/L	9 U	9 U	9 U	9 U	9.0 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7 U	7.0 U	7.0 U
Methane	ug/L	4 U	4 U	4 U	4 U	4.0 U	4.0 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	10.0 U	18.8	19.6	17.0	17.0	21.0
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	2.4	2.1	2.1	1.8	2.1	2.5
Ferrous iron	mg/L	-	-	-	-	--	-
Nitrate (as N)	mg/L	1.5	1.6	1.5	1.5	1.5	1.7
Orthophosphate	mg/L	0.0228	0.0175	0.0163	0.0159	0.0160 U	0.0103
Sulfate	mg/L	15	15	13	14	15	15
Total organic carbon (TOC)	mg/L	1.52	0.567 J	0.411 J	0.716 J	1.00 U	0.961 J
Field Parameters							
pH	S.U	-	5.90	-	5.53	-	5.1
DO	mg/L	-	6.39	-	5.72	-	1.27
ORP	mv	-	193	-	162	-	309

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using sm

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-35	MW-35	MW-35	MW-35	MW-35	MW-35
Sample ID:		GW-013926-102513-DJB-107	GW-013926-102513-DJB-108	GW-013926-050114-DWH-109	GW-013926-101514-SAG-007	GW-013926-031815-SAG-008	GW-013926-102815
Sample Date:		10/25/2013	10/25/2013	5/1/2014	10/15/2014	3/18/2015	10/28/201
Parameters	Units		Duplicate				
Volatile Organic Compounds							
1,1,1-Trichloroethane	ug/L	1.3	1.4	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	40	45	14	20	18	15
1,1,2-Trichloroethane	ug/L	1.3	1.6	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	11	13	3.2	3.5	2.8	2.3
1,1-Dichloroethene	ug/L	5.2	5.9	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.020 U	0.021 U	0.020 U	0.020 U	0.020 U	0.021 U
1,2-Dichlorobenzene	ug/L	1.2	1.4	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	2.8	3.1	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	4.0	4.1	1.8	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	150 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	ug/L	20	22	4.8	1.1	0.40 J	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	1.5	1.7	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	4.7	5.8	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	2.6	3.0	1.3	1.1	0.83 J	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	76	86	28	44	44	45
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	29	31	37	12	8.8	6.2
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	0.87 J	1.1 J	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	240	240	140	130	120	110
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	6.8	8.2	1.0 U	1.0 U	1.7	1.0 U
Xylenes (total)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-35	MW-35	MW-35	MW-35	MW-35	MW-35
Sample ID:		GW-013926-102513-DJB-107	GW-013926-102513-DJB-108	GW-013926-050114-DWH-109	GW-013926-101514-SAG-007	GW-013926-031815-SAG-008	GW-013926-102815
Sample Date:		10/25/2013	10/25/2013	5/1/2014	10/15/2014	3/18/2015	10/28/201
Parameters	**Units**		Duplicate				
Metals							
Arsenic	mg/L	0.00052 J	0.000587 J	0.005 U	0.005 U	0.00041 J	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	-	-	--
Barium	mg/L	0.319	0.33	0.295	0.284	0.272	0.249
Barium (dissolved)	mg/L	-	-	-	-	-	--
Cadmium	mg/L	0.000369 J	0.000422 J	0.0007 U	0.000982	0.000238 J	0.000293
Cadmium (dissolved)	mg/L	-	-	-	-	-	--
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.000812 J	0.000889 J	0.00142 J
Chromium Total (dissolved)	mg/L	-	-	-	-	-	--
Copper	mg/L	0.000906 J	0.00134 J	0.002 U	0.00285	0.00155 J	0.00355
Copper (dissolved)	mg/L	-	-	-	-	-	--
Iron	mg/L	0.0666 J	0.0886 J	0.1 U	0.234	0.342	0.646
Iron (dissolved)	mg/L	-	-	-	-	--	--
Lead	mg/L	0.000318 J	0.000329 J	0.001 U	0.000515 J	0.001 U	0.00135
Lead (dissolved)	mg/L	-	-	-	-	-	--
Manganese	mg/L	0.397	0.463	0.501	0.412	0.386	0.36 J
Manganese (dissolved)	mg/L	-	-	-	-	--	--
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.00036 J	0.00043 J	0.00169 J
Selenium (dissolved)	mg/L	-	-	-			--
Dissolved Gas							
Ethane	ug/L	4 J	4 J	9 U	9 U	9 U	9.0 U
Ethene	ug/L	7 U	7 U	7 U	7 U	7 U	7.0 U
Methane	ug/L	110	120	160	29	40	4.0 U
Wet Chemistry							
Alkalinity, total (as CaCO3)	mg/L	10.6	10.2	10.0 U	14.5	5.00	7.00
Ammonia	mg/L	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	38	39	32	36	30	29
Ferrous iron	mg/L	-	-	-	-	-	--
Nitrate (as N)	mg/L	0.14 J	0.10 J	1.3	0.24 J	0.37	0.34
Orthophosphate	mg/L	0.0169	0.0190	0.0131	0.0113	0.0125	0.0136 U
Sulfate	mg/L	3.5 J	1.6 J	10	3.9	0.76 J	1.5
Total organic carbon (TOC)	mg/L	4.34	4.59	3.67	2.92	5.00 U	1.76
Field Parameters							
pH	S.U	4.31	4.31	4.39	4.89	4.68	5.06
DO	mg/L	0.0	0.0	0.98	3.19	0.45	0.87
ORP	mv	461	461	546	314	236	246

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using sm

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-42 GW-042612-BCW-107 4/26/2012	MW-42 GW-102512-DJB-004 10/25/2012	MW-42 GW-102512-DJB-005 10/25/2012 Duplicate	MW-42 GW-042213-DJB-206 4/22/2013	MW-42 GW-013926-102413-SAG-010 10/24/2013	MW-42 GW-013926-042514-DJB-009 4/25/2014	MW-42 GW-013926-101414-DJ 10/14/2014
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	11	50.0 U	6.6 J	11.1	7.4	5.4	3.8
1,1,2,2-Tetrachloroethane	ug/L	32	27.5 J	29.0 J	32.6	35	26	23
1,1,2-Trichloroethane	ug/L	2.9 J	2.3 J	2.7 J	3.5 J	2.7	2.4	1.0 U
1,1-Dichloroethane	ug/L	46	63.9	66.9	94.0	78	56	51
1,1-Dichloroethene	ug/L	45	64.8	66.6	147	82	65	66
1,2,4-Trichlorobenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	0.020 U	0.020 U	0.020 U	0.021 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	0.76 J	50.0 U	50.0 U	0.65 J	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	6.0	5.4 J	5.5 J	6.0 J	5.1	3.9	3.9
1,2-Dichloropropane	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 J	50.0 U	50.0 U	1.0 J	0.69 J	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	55.4	60.9	10.0 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	50.0 U	50.0 U	10.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	50.0 U	50.0 U	10.0 U	10 U	10 U	10 U
Acetone	ug/L	50 U	125 U	125 U	25.0 U	20 U	20 U	20 U
Benzene	ug/L	14	13.1 J	13.4 J	14.8	2.1	5.7	4.0
Bromodichloromethane	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	1.3 J	50.0 U	50.0 U	2.0 J	0.91 J	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	50.0 U	50.0 U	0.39 J	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.3 J	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	39	35.7 J	37.3 J	61.1	36	34	31
Chloromethane (Methyl chloride)	ug/L	10 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	620	646	696	819	550	540	480
cis-1,3-Dichloropropene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	50.0 U	50.0 U	0.93 J	1.1	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	50.0 U	50.0 U	6.6 J	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	1.9 J	1.7 J	10.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	7.0 J	7.0 J	4.0 J	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	160	69.0	71.3	170	100	170	110
Toluene	ug/L	0.40 J	50.0 U	50.0 U	0.26 J	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.4 J	50.0 U	50.0 U	1.8 J	1.4 J	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	50.0 U	50.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	540	364	378	691	410	540	430
Trichlorofluoromethane (CFC-11)	ug/L	3.4 J	2.6 J	2.7 J	5.0 J	5.2	3.4	3.2
Trifluorotrichloroethane (Freon 113)	ug/L	12	12.7 J	13.5 J	37.4	19	20	15
Vinyl chloride	ug/L	14 J	8.2 J	9.3 J	12.5	11	8.6	5.9
Xylenes (total)	ug/L	5.0 U	50.0 U	50.0 U	1.5 J	1.0 U	1.0 U	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	MW-42 GW-042612-BCW-107 4/26/2012	MW-42 GW-102512-DJB-004 10/25/2012	MW-42 GW-102512-DJB-005 10/25/2012 Duplicate	MW-42 GW-042213-DJB-206 4/22/2013	MW-42 GW-013926-102413-SAG-010 10/24/2013	MW-42 GW-013926-042514-DJB-009 4/25/2014	MW-42 GW-013926-101414-DJ 10/14/2014
Metals								
Arsenic	mg/L	0.0500 U	0.01 U	0.01 U	0.01 U	0.000276 J	0.005 U	0.005 U
Arsenic (dissolved)	mg/L	-	-	-	-	-	-	-
Barium	mg/L	0.198	0.321	0.301	0.237	0.196	0.492	0.248
Barium (dissolved)	mg/L	-	-	-	-	-	-	-
Cadmium	mg/L	0.0050 U	0.005 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	-	-	-	-	-	-	-
Chromium	mg/L	0.0019 J	0.0112	0.0072 J	0.0052 J	0.00348 J	0.02 U	0.00119 J
Chromium Total (dissolved)	mg/L	-	-	-	-	-	-	-
Copper	mg/L	0.0014 J	0.025 U	0.025 U	0.025 U	0.00157 J	0.00397	0.00214
Copper (dissolved)	mg/L	-	-	-	-	-	-	-
Iron	mg/L	1.44	6.16	4.8	3.04	2.04	12.5	0.623
Iron (dissolved)	mg/L	-	-	-	-	-	-	-
Lead	mg/L	0.0100 U	0.005 U	0.005 U	0.005 U	0.000832 J	0.00281	0.000311 J
Lead (dissolved)	mg/L	-	-	-	-	-	-	-
Manganese	mg/L	0.0741	0.15	0.139	0.075	0.0516	0.18	0.0302
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-
Selenium	mg/L	0.0200 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.000283 J
Selenium (dissolved)	mg/L	-	-	-		-	-	
Dissolved Gas								
Ethane	ug/L	9 U	6.2 U	6.2 U	6.2 U	9 U	9 U	9 U
Ethene	ug/L	7 U	6.2 U	6.2 U	6.2 U	7 U	7 U	7 U
Methane	ug/L	48	44.2	40.0	149	8	34	30
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	53.5	40.4	48.7	27.9	55.6	51.5	52.5
Ammonia	mg/L	0.200 U	0.10 U	0.10 U	0.10 U	0.020 U	0.020 U	0.020 U
Chloride	mg/L	1.9	-	-	3.2	4.9	9.9	12
Ferrous iron	mg/L	-	2.4	2.3	-	-	-	-
Nitrate (as N)	mg/L	0.67	0.72 J	0.73 J	1.2	1.3	1.4	0.91
Orthophosphate	mg/L	0.179	0.25 U	0.25 U	0.26	0.157	0.158	0.146
Sulfate	mg/L	0.62 J	1.0 U	1.0 U	1.0 U	0.54 J	1.0 U	4.0 J
Total organic carbon (TOC)	mg/L	2.32	4.3 J	4.2 J	4.8	2.45	3.09	1.08
Field Parameters								
pH	S.U	5.76	6.28	6.28	6.38	5.9	6.14	5.97
DO	mg/L	0.02	6.09	6.09	0.00	2.05	5.92	0.63
ORP	mv	149	127	127	69	146	82	173

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using sm

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		TW-2	TW-2	TW-2	TW-2	TW-2	TW-2	TW-2
Sample ID:		GW-020911-EAH-016	GW-101311-SAG-013	GW-042512-BCW-105	GW-102512-BCW-103	GW-042313-DJB-207	GW-013926-102413-SAG-008	GW-013926-042414-DJB-007
Sample Date:		2/9/2011	10/13/2011	4/25/2012	10/25/2012	4/23/2013	10/24/2013	4/24/2014
Parameters	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U
Acetone	ug/L	50 U	50 U	22 J	25.0 U	25.0 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Toluene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U

Attachment C2

Historical Analytical Results Summary
Monitored Natural Attenuation in Saprolite Unit
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Parameters	Units	TW-2 GW-020911-EAH-016 2/9/2011	TW-2 GW-101311-SAG-013 10/13/2011	TW-2 GW-042512-BCW-105 4/25/2012	TW-2 GW-102512-BCW-103 10/25/2012	TW-2 GW-042313-DJB-207 4/23/2013	TW-2 GW-013926-102413-SAG-008 10/24/2013	TW-2 GW-013926-042414-DJB-007 4/24/2014
Metals								
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.01 U	0.01 U	0.00021 J	0.005 U
Arsenic (dissolved)	mg/L	0.0500 U	-	-	-	-	-	-
Barium	mg/L	0.389	0.208	0.342	0.237	0.119 J	0.0411	0.0228
Barium (dissolved)	mg/L	0.0227	-	-	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.005 U	0.005 U	0.000241 J	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-	-	-	-	-	-
Chromium	mg/L	0.0416	0.0184	0.0074 J	0.0193	0.0084 J	0.000797 J	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-	-	-	-	-	-
Copper	mg/L	0.0721	0.0187	0.0093 J	0.0132 J	0.0221 J	0.00179 J	0.002 U
Copper (dissolved)	mg/L	0.0011 J	-	-	-	-	-	-
Iron	mg/L	19.9	10.1	2.78	11.8	4	0.311	0.206
Iron (dissolved)	mg/L	0.0864 J	-	-	-	-	-	-
Lead	mg/L	0.0174	0.0056 J	0.0043 J	0.005 U	0.0063	0.000758 J	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-	-	-	-	-	-
Manganese	mg/L	1.99	1.49	9.35	0.807	1.08	0.706	0.0679
Manganese (dissolved)	mg/L	0.638	-	-	-	-	-	-
Selenium	mg/L	0.0200 U	0.0200 U	0.0109 J	0.01 U	0.01 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-	-	-		-	-
Dissolved Gas								
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.2 U	9 U	9 U
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.2 U	7 U	7 U
Methane	ug/L	890	16	18	49.8	33.0	3 J	52
Wet Chemistry								
Alkalinity, total (as CaCO3)	mg/L	42.6	35.2	36.2	30.0	30.5	33.2	27.2
Ammonia	mg/L	-	0.012 J	0.200 U	0.10 U	0.10 U	0.020 U	0.020 U
Chloride	mg/L	1.9	2.2	1.8	-	1.6	1.6	1.9
Ferrous iron	mg/L	0.200 UJ	-	-	1.7	-	-	-
Nitrate (as N)	mg/L	0.62	0.72	0.74	0.80 J	0.91	0.69	0.87
Orthophosphate	mg/L	-	0.0908	0.104	0.25 U	0.25 U	0.111	0.0991
Sulfate	mg/L	2.8	2.3	2.4	2.4	2.3	2.3	4.0
Total organic carbon (TOC)	mg/L	1.00 U	0.733 J	3.50	1.3 J	1.0	2.93	1.00 U
Field Parameters								
pH	S.U	6.65	6.72	6.64	7.12	7.06	6.48	6.72
DO	mg/L	1.99	0.84	1.69	12.37	6.48	2.15	6.82
ORP	mv	210	224	115	187	141	224	106

Notes:
ug/L - micrograms per Liter
mg/L milligrams per Liter
U - Non-detect at associated value
J - Estimated values
R - Rejected
UJ - Not detected, estimated reporting limit
The October 2013 analytical results are reported using sm

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW-7A	MW
Sample ID:		GW-020211-EAH-001	GW-101111-SAG-005	GW-042412-AWY-004	GW-103012-DJB-011	GW-042213-EAH-106	GW-042213-EAH-107	GW-013926-102413-DJB-105	GW-013926-042314-DJB-001	GW-013926-1
Sample Date:		2/2/2011	10/11/2011	4/24/2012	10/30/2012	4/22/2013	4/22/2013	10/24/2013	4/23/2014	10/1
							Duplicate			
Parameters	**Units**									
Volatile Organic Compounds										
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	0.83 J	1.1 J	7.3 J	7.0 J	7.2	5.7	3
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.78 J	0.75 J	2.0 U	2.0 U	2.
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.57 J	0.31 J	1.0 U	1.0 U	1.
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.0
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	0.48 J	0.27 J	0.74 J	10.0 U	0.68 J	1.0 U	1.
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
1,4-Dioxane	ug/L	-	-	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	7.2 J	10.0 U	10.0 U	10 U	10 U	1
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10 U	10 U	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	10 U	10 U	1
Acetone	ug/L	17 J	11 J	5.8 J	109	25.0 U	25.0 U	20 U	20 U	2
Benzene	ug/L	5.0 U	5.0 U	5.0 U	0.38 J	2.1 J	1.8 J	2.5	1.4	0.
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.31 J	0.29 J	0.46 J	1.0 U	1.
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
cis-1,2-Dichloroethene	ug/L	16	15	30	37.9	161	159	140	120	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	1.4 J	1.5 J	5.0 U	5.0 U	5.
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Tetrachloroethene	ug/L	14	1.8 J	2.1 J	1.5 J	9.8 J	9.4 J	16	9.5	7
Toluene	ug/L	5.0 U	5.0 U	5.0 U	0.48 J	0.46 J	10.0 U	1.0 U	1.0 U	1.
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.
Trichloroethene	ug/L	3.5 J	3.6 J	7.2	5.4 J	26.2	27.8	26	19	9
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	1.2 J	12.8	10.2	5.5	1.5	6
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	0.90 J	10.0 U	1.0 U	1.0 U	1.
Metals										
Arsenic	mg/L	-	0.0500 U	0.0070 J	0.0049 J	0.01 U	0.01 U	0.0011 J	0.005 U	0.00
Arsenic (dissolved)	mg/L	-	-		-	-	-	-	-	
Barium	mg/L	-	0.0154 J	0.0114 J	0.0648 J	0.0284 J	0.0196 J	0.0337	0.0257	0
Barium (dissolved)	mg/L	-	-		-	-	-	-	-	
Cadmium	mg/L	-	0.0050 U	0.0050 U	0.005 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.0
Cadmium (dissolved)	mg/L	-	-		-	-	-	-	-	
Chromium	mg/L	-	0.0011 J	0.0100 U	0.0042 J	0.01 U	0.01 U	0.005 U	0.005 U	0.0
Chromium Total (dissolved)	mg/L	-	-		-	-	-	-	-	
Copper	mg/L	-	0.0045 J	0.0100 U	0.0265	0.025 U	0.025 U	0.000969 J	0.002 U	0.0
Copper (dissolved)	mg/L	-	-		-	-	-	-	-	
Iron	mg/L	-	0.100 U	0.0631 J	2.04	2.3 J	0.181 J	0.073 J	0.1 U	0
Iron (dissolved)	mg/L	-	-	-	-	-	-	-	-	
Lead	mg/L	-	0.0100 U	0.0024 J	0.0042 J	0.005 U	0.005 U	0.001 U	0.001 U	0.0
Lead (dissolved)	mg/L	-	-		-	-	-	-	-	
Manganese	mg/L	-	0.0455	0.0239	0.496	0.0373 J	0.0086 J	0.0106	0.0096	0.
Manganese (dissolved)	mg/L	-	-	-	-	-	-	-	-	
Selenium	mg/L	-	0.0200 U	0.0200 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U	0.0
Selenium (dissolved)	mg/L	-	-		-			-	-	
Dissolved Gas										
Ethane	ug/L	-	9 U	9 U	6.2 U	6.2 U	6.2 U	9 U	9 U	9
Ethene	ug/L	-	7 U	7 U	1.6 J	0.91 J	6.2 U	7 U	7 U	2
Methane	ug/L	-	33	33	37.6	18.5	11.5	3 J	21	7
Wet Chemistry										
Alkalinity, total (as CaCO3)	mg/L	-	365	275	271	98.3 J	45.3 J	119	119	1
Ammonia	mg/L		0.027 J	0.200 U	0.10 U	0.10 U	0.10 U	0.027 J	0.113	

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

		Shallow Bedrock Unit								
	Sample Location:	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A	MW-10A
	Sample ID:	GW-020911-DJB-209	NOT SAMPLED	GW-042612-AWY-010	GW-042612-AWY-011	GW-102912-BCW-104	GW-041713-DJB-201	GW-013926-102313-SAG-003	GW-013926-050114-DJB-012	GW-013926-1016
	Sample Date:	2/9/2011	10/11/11	4/26/2012	4/26/2012	10/29/2012	4/17/2013	10/23/2013	5/1/2014	10/16/20
					Duplicate					
Parameters	**Units**									
Volatile Organic Compounds										
1,1,1-Trichloroethane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	0.39 J	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U		5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.021 U
1,2-Dichlorobenzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U		50 U	50 U	10.0 U	10.0 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U		10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U		10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U
Acetone	ug/L	50 U		50 U	50 U	25.0 U	25.0 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U		10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U		10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	3.5 J		1.2 J	1.2 J	2.8 J	3.7 J	4.6	3.6	5.6
cis-1,3-Dichloropropene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U		10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U		R	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	0.71 J	1.4	1.0 U	1.0 U
Toluene	ug/L	5.4		5.0 U	5.0 U	1.3 J	10.0 U	1.0 U	2.0	7.0
trans-1,2-Dichloroethene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	5.0 U		0.66 J	5.0 U	1.3 J	1.5 J	2.0	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U		10 U	10 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U		2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U		5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Metals										
Arsenic	mg/L	50 U		0.0039 J	0.0500 U	0.01 U	0.01 U	0.000897 J	0.005 U	0.00107
Arsenic (dissolved)	mg/L	50 U				-	-	-	-	-
Barium	mg/L	17.1 J		0.0395	0.0366	0.0155 J	0.0143 J	0.0115	0.0176	0.0143
Barium (dissolved)	mg/L	11.6 J				-	-	-	-	-
Cadmium	mg/L	5 U		0.0012 J	0.0050 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	5 U				-	-	-	-	-
Chromium	mg/L	10 U		0.0031 J	0.0007 J	0.01 U	0.0024 J	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	10 U				-	-	-	-	-
Copper	mg/L	10 U		0.0090 J	0.0076 J	0.025 U	0.025 U	0.002 U	0.002 U	0.0023
Copper (dissolved)	mg/L	10 U				-	-	-	-	-
Iron	mg/L	103		1.29	1.20	0.0737 J	0.0802 J	0.0089 J	0.158	0.0255
Iron (dissolved)	mg/L	100 U		-	-	-	-	-	-	-
Lead	mg/L	9.6 J		0.0839	0.0788	0.0041 J	0.005 U	0.000231 J	0.0106	0.00339
Lead (dissolved)	mg/L	10 U				-	-	-	-	-
Manganese	mg/L	118		0.677	0.623	0.0473	0.0515	0.00427 J	0.145	0.0422
Manganese (dissolved)	mg/L	2.6 J		-	-	-	-	-	-	-
Selenium	mg/L	20 U		0.0125 J	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	20 U				-		-	-	
Dissolved Gas										
Ethane	ug/L	9 U		9 U	9 U	6.2 U	6.2 U	9 U	9 U	9 U
Ethene	ug/L	7 U		7 U	7 U	6.2 U	6.2 U	7 U	7 U	7 U
Methane	ug/L	4 U		2 J	3 J	6.6 U	35.9	4 U	4 U	4 U
Wet Chemistry										
Alkalinity, total (as CaCO3)	mg/L	73700		76.6	80.1	69.4	70.1	72.6	70.6	74.8

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

Sample Location:		MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	
Sample ID:		GW-020911-SAG-120	GW-101211-DJB-105	GW-101211-DJB-104	GW-042612-BLW-106	GW-102412-DJB-003	GW-041813-DJB-205	GW-013926-102413-SAG-009	GW-013926-042414-DJB-008	GW-013926-101514-DJB-107	GW-01
Sample Date:		2/9/2011	10/12/2011	10/12/2011	4/26/2012	10/24/2012	4/18/2013	10/24/2013	4/24/2014	10/15/2014	
			Duplicate								
Parameters	**Units**										
Volatile Organic Compounds											
1,1,1-Trichloroethane	ug/L	1.4 J	1.7 J	1.6 J	0.70 J	1.4 J	1.1 J	0.96 J	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	12	10	11	7.1	8.3 J	7.9 J	8.2	5.7	6.9	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	0.54 J	0.61 J	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	15	30	30	11	22.0	16.4	15	7.5	7.6	
1,1-Dichloroethene	ug/L	13	29	28	5.3	17.1	12.6	12	5.0	4.6	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.021 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	0.32 J	0.32 J	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	0.88 J	1.9 J	1.9 J	0.63 J	1.4 J	1.1 J	0.96 J	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	1.0 J	0.99 J	5.0 U	0.51 J	0.54 J	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	
Acetone	ug/L	50 U	50 U	50 U	17 J	25.0 U	25.0 U	20 U	20 U	20 U	
Benzene	ug/L	1.6 J	6.8	7.0	1.1 J	2.0 J	2.1 J	0.64 J	1.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 U	0.55 J	5.0 U	0.37 J	0.28 J	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 U	10 U	1.3 J	2.2 J	10.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.4	8.1	7.9	3.7 J	6.2 J	5.4 J	5.1	2.8	2.8	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	270	320	350	170	275	243	250	170	150	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	2.7 J	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	5.0 U	2.2 J	2.2 J	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	61	76	75	1.8 J	48.3	54.4	39	21	44	
Toluene	ug/L	5.0 U	13	14	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	1.3 J	0.91 J	0.94 J	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	330	400	430	82	263	271	270	200	210	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	0.23 J	10.0 U	1.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	7.6 J	15	15	1.1 J	7.1 J	5.5 J	4.8 J	5.0 U	2.4 J	
Vinyl chloride	ug/L	4.2	12	12	2.6 J	5.2 J	3.3 J	3.1	2.0	1.5	
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Metals											
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0500 U	0.01 U	0.01 U	0.000254 J	0.005 U	0.005 U	
Arsenic (dissolved)	mg/L	0.0500 U	-	-		-	-	-	-	-	
Barium	mg/L	0.102	0.0979	0.104	0.0885	0.088 J	0.09 J	0.076	0.0767	0.0737	
Barium (dissolved)	mg/L	0.0903	-	-		-	-	-	-	-	
Cadmium	mg/L	0.0050 U	0.0004 J	0.0050 U	0.0050 U	0.005 U	0.005 U	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	0.0050 U	-	-		-	-	-	-	-	
Chromium	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	
Chromium Total (dissolved)	mg/L	0.0100 U	-	-		-	-	-	-	-	
Copper	mg/L	0.0100 U	0.0100 U	0.0100 U	0.0100 U	0.025 U	0.025 U	0.000535 J	0.002 U	0.005 U	
Copper (dissolved)	mg/L	0.0100 U	-	-		-	-	-	-	-	
Iron	mg/L	0.0272 J	0.100 U	0.174 U	0.0259 J	0.1 U	0.1 U	0.0132 J	0.1 U	0.1 U	
Iron (dissolved)	mg/L	0.100 U	-	-		-	-	-	-	-	
Lead	mg/L	0.0100 U	0.0026 J	0.0074 J	0.0100 U	0.005 U	0.005 U	0.000191 J	0.001 U	0.001 U	
Lead (dissolved)	mg/L	0.0100 U	-	-		-	-	-	-	-	
Manganese	mg/L	0.0798	0.0601	0.0679	0.0717	0.0477	0.0431	0.0428	0.0557	0.0474	
Manganese (dissolved)	mg/L	0.0635	-	-		-	-	-	-	-	
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 UJ	
Selenium (dissolved)	mg/L	0.0200 U	-	-		-		-	-		
Dissolved Gas											
Ethane	ug/L	9 U	9 U	9 U	9 U	6.2 U	6.2 U	9 U	9 U	9 U	
Ethene	ug/L	7 U	7 U	7 U	7 U	6.2 U	6.2 U	7 U	7 U	7 U	
Methane	ug/L	39	200	210	13	55.7	12.1	15	4 U	4 U	
Wet Chemistry											
Alkalinity, total (as CaCO3)	mg/L	30.8	43.3	45.1	24.9	34.3	35.7	37.0	28.1	34.3	
Arsenic	mg/L		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

		Shallow Bedrock Unit							
	Sample Location:	MW-41	MW-41	MW-41	MW-41	MW-41	MW-41	MW-41	MW-41
	Sample ID:	GW-021111-DJB-212	GW-101211-DJB-103	GW-042512-AWY-009	GW-102412-DJB-002	GW-041813-DJB-204	GW-013926-102413-DJB-104	GW-013926-042314-DJB-004	GW-013926-101414-DJB-101
	Sample Date:	2/11/2011	10/12/2011	4/25/2012	10/24/2012	4/18/2013	10/24/2013	4/23/2014	10/14/2014
Parameters	***Units***								
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	3.5 J	5.0 U	2.5 J	10.0 U	1.5 J	1.8	1.3	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.2	3.1 J	4.2 J	3.0 J	3.9 J	3.6	2.6	1.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.8 J	5.0 U	1.5 J	0.78 J	1.3 J	1.4	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	6.1	5.0 U	5.7	1.2 J	4.2 J	4.7	4.3	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.021 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.9	2.6 J	4.1 J	3.4 J	4.3 J	5.0	4.9	2.3
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	25.0 U	25.0 U	20 U	20 U	20 U
Benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	5.9	1.4 J	4.5 J	2.3 J	3.8 J	3.8	3.6	2.1
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	37	9.4	30	18.2	34.6	38	27	8.7
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
[illegible]	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	20	4.4 J	26	5.6 J	23.6	38	28	20
Toluene	ug/L	1.0 J	12	5.0 U	10.0 U	10.0 U	1.0 U	1.8	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	47	8.5	42	11.8	42.7	47	33	16
Trichlorofluoromethane (CFC-11)	ug/L	2.4 J	5.0 U	1.3 J	0.37 J	1.9 J	2.1	2.3	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	10.0 U	0.45 J	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U
Metals									
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0038 J	0.01 U	0.000348 J	0.005 U	0.005 U
Arsenic (dissolved)	mg/L	0.0500 U	-		-	-	-	-	-
Barium	mg/L	0.243	0.363	0.301	0.297	0.301	0.19	0.22	0.198
Barium (dissolved)	mg/L	0.233	-		-	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.005 U	0.005 U	0.000124 J	0.0007 U	0.0007 U
Cadmium (dissolved)	mg/L	0.0050 U	-		-	-	-	-	-
Chromium	mg/L	0.0011 J	0.0165	0.0074 J	0.008 J	0.0051 J	0.005 U	0.005 U	0.000629 J
Chromium Total (dissolved)	mg/L	0.0100 U	-		-	-	-	-	-
Copper	mg/L	0.0014 J	0.0169	0.0048 J	0.0088 J	0.0052 J	0.000315 J	0.002 U	0.0022
Copper (dissolved)	mg/L	0.0100 U	-		-	-	-	-	-
Iron	mg/L	0.538	11.4	4.16	5.67	3.73	0.0763 J	0.184	0.182
Iron (dissolved)	mg/L	0.100 U	-	-	-	-	-	-	-
Lead	mg/L	0.0100 U	0.0034 J	0.0021 J	0.005 U	0.005 U	0.001 U	0.001 U	0.00011 J
Lead (dissolved)	mg/L	0.0100 U	-		-	-	-	-	-
Manganese	mg/L	0.147	0.191	0.0969	0.101	0.086	0.0381	0.046	0.0338
Manganese (dissolved)	mg/L	0.141	-	-	-	-	-	-	-
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-		-	-	
Dissolved Gas									
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.2 U	9 U	9 U	9 U
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.2 U	7 U	7 U	7 U
Methane	ug/L	4 U	4 U	4 U	6.6 U	6.6 U	4 U	4 U	4 U
Wet Chemistry									
Alkalinity, total (as CaCO3)	mg/L	10.0 U	10.0 U	10.0 U	1.5 J	4.2 J	7.0 J	10.0 U	11.8
Ammonia	mg/L		0.025 J	0.200 U	0.20 U	0.10 U	0.020 U	0.020 U	0.020 U

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

		Bed Rock Unit								
Sample Location:		MW-4A	MW-4A	MW-4A	MW-4A	MW-4A	MW-4A	MW-4A	MW-4A	
Sample ID:		GW-020911-DJB-207	GW-101211-DJB-106	GW-042612-AWY-012	GW-102512-DJB-006	GW-041713-DJB-202	GW-013926-102313-SAG-001	GW-013926-042314-DJB-002	GW-013926-101614-SAG-011	GW-
Sample Date:		2/9/2011	10/12/2011	4/26/2012	10/25/2012	4/17/2013	10/23/2013	4/23/2014	10/16/2014	
Parameters	***Units***									
Volatile Organic Compounds										
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	0.55 J	0.97 J	0.72 J	1.1	1.6	1.0 U	
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	1.6 J	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
1,4-Dioxane	ug/L	-	-	-	-	-	-	-	-	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	50 U	50 U	10.0 U	10.0 U	10 U	10 U	10 U	
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	
Acetone	ug/L	50 U	50 U	50 U	25.0 U	25.0 U	20 U	20 U	20 U	
Benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	ug/L	3.3 J	6.1	5.2	9.8 J	8.8 J	11	17	9.6	
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	ug/L	5.0 U	2.0 J	4.4 J	4.3 J	4.2 J	7.8	8.0	5.9	
Toluene	ug/L	9.1	8.4	5.0 U	10.0 U	0.26 J	1.0 U	2.5	1.0 U	
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	
Trichloroethene	ug/L	2.3 J	4.4 J	1.7 J	3.3 J	3.2 J	4.4	5.1	3.7	
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	0.42 J	0.30 J	5.0 U	5.0 U	5.0 U	
Vinyl chloride	ug/L	2.0 U	2.0 U	2.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	
Metals										
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	
Arsenic (dissolved)	mg/L	0.0500 U	-		-	-	-	-	-	
Barium	mg/L	0.0180 J	0.0154 J	0.0212	0.0182 J	0.0237 J	0.0151	0.0176	0.0168	
Barium (dissolved)	mg/L	0.0162 J	-		-	-	-	-	-	
Cadmium	mg/L	0.0050 U	0.0050 U	0.0003 J	0.005 U	0.005 U	0.0007 U	0.0007 U	0.0007 U	
Cadmium (dissolved)	mg/L	0.0050 U	-		-	-	-	-	-	
Chromium	mg/L	0.0100 U	0.0100 U	0.0100 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	
Chromium Total (dissolved)	mg/L	0.0100 U	-		-	-	-	-	-	
Copper	mg/L	0.0015 J	0.0100 U	0.0010 J	0.025 U	0.025 U	0.000526 J	0.002 U	0.00294	
Copper (dissolved)	mg/L	0.0146 J	-		-	-	-	-	-	
Iron	mg/L	0.330	0.319 U	0.109	0.1 U	0.292	0.0115 J	0.1 U	0.0443 J	
Iron (dissolved)	mg/L	0.0562 J	-	-	-	-	-	-	-	
Lead	mg/L	0.108	0.0146	0.0133	0.0043 J	0.0125	0.00163	0.00151	0.00363	
Lead (dissolved)	mg/L	0.0195	-		-	-	-	-	-	
Manganese	mg/L	0.0073 J	0.0111 J	0.0031 J	0.0039 J	0.0035 J	0.000799 J	0.005 U	0.00264 J	
Manganese (dissolved)	mg/L	0.0055 J	-	-	-	-	-	-	-	
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U	0.00085 J	
Selenium (dissolved)	mg/L	0.0200 U	-		-		-	-		
Dissolved Gas										
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.2 U	9 U	9 U	9 U	
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.2 U	7 U	7 U	7 U	
Methane	ug/L	4 U	530	52	65.6	6.6 U	7	39	11	
Wet Chemistry										
Alkalinity, total (as CaCO3)	mg/L	36.8	32.9	35.6	31.2	32.2	36.3	36.3	40.3	

Attachment C3
Historical Analytical Results Summary
Monitored Natural Attenuation in Shallow Bedrock and Bedrock Units
Aqua-Tech Environmental, Inc.
Greer, South Carolina

										Bedrock Unit
	Sample Location:	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A
	Sample ID:	GW-021011-EAH-021	GW-101211-SAG-007	GW-042512-AWY-006	GW-102912-DJB-008	GW-041713-EAH-104	GW-013926-102813-DJB-110	GW-013926-050114-DWH-108	GW-013926-101514-SAG-009	GW-013926-031815-SAC
	Sample Date:	2/10/2011	10/12/2011	4/25/2012	10/29/2012	4/17/2013	10/28/2013	5/1/2014	10/15/2014	3/18/2015
Parameters	***Units***									
Volatile Organic Compounds										
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	33	34	31	24.3	15.1	7.2	6.0	8.8	8.2
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	1.0 J	0.85 J	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	5.3	4.0 J	4.7 J	3.3 J	2.6 J	1.6	1.0 U	1.0	0.87 J
1,1-Dichloroethene	ug/L	2.4 J	1.4 J	2.1 J	1.2 J	0.87 J	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	5.0 U	5.0 U	5.0 U	0.020 U	0.020 U	0.021 U	0.020 U	0.020 U	0.020 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	0.35 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.5 J	5.0 U	0.94 J	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	ug/L	-	-	-	-	-	-	-	-	-
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	50 U	12 J	50 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	10 U
Acetone	ug/L	50 U	50 U	50 U	33.0 U	25.0 U	20 U	20 U	20 U	20 U
Benzene	ug/L	0.65 J	0.67 J	0.60 J	0.52 J	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	ug/L	0.71 J	5.0 U	5.0 U	0.26 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	2.3 J	2.6 J	10 U	1.1 J	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.1 J	5.0 U	5.0 U	0.40 J	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	160	120	200	148	142	84	48	55	40
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	10 U	10 U	10 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U	5.0 U	2.8 J	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	38	9.3	26	11.4	7.4 J	6.2	18	18	7.9
Toluene	ug/L	5.0 U	5.0 U	5.0 U	0.26 J	0.51 J	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	1.7 J	1.1 J	1.1 J	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	ug/L	380	240	390	206	155	130	140	120	77
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	10 U	10 U	10 U	0.37 J	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	7.6	5.6	6.6	4.3 J	2.3 J	1.6	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	5.0 U	5.0 U	5.0 U	10.0 U	10.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals										
Arsenic	mg/L	0.0500 U	0.0500 U	0.0500 U	0.0046 J	0.0038 J	0.00173 J	0.005 U	0.000659 J	0.000629 J
Arsenic (dissolved)	mg/L	0.0500 U	-		-	-	-	-	-	-
Barium	mg/L	0.184	0.199	0.155	0.141 J	0.15 J	0.131	0.131	0.125	0.125
Barium (dissolved)	mg/L	0.171	-		-	-	-	-	-	-
Cadmium	mg/L	0.0050 U	0.0050 U	0.0050 U	0.005 U	0.005 U	0.000117 J	0.0007 U	0.000704	0.000525 J
Cadmium (dissolved)	mg/L	0.0050 U	-		-	-	-	-	-	-
Chromium	mg/L	0.0008 J	0.0017 J	0.0011 J	0.0021 J	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U
Chromium Total (dissolved)	mg/L	0.0100 U	-		-	-	-	-	-	-
Copper	mg/L	0.0100 U	0.0015 J	0.0100 U	0.025 U	0.025 U	0.000366 J	0.002 U	0.00229	0.00241
Copper (dissolved)	mg/L	0.0100 U	-		-	-	-	-	-	-
Iron	mg/L	7.62	14.0	6.99	6.82	7.03	3.48	8.18	0.656	0.549
Iron (dissolved)	mg/L	5.25	-	-	-	-	-	-	-	--
Lead	mg/L	0.0100 U	0.0029 J	0.0100 U	0.005 U	0.005 U	0.000183 J	0.001 U	0.00178	0.001 U
Lead (dissolved)	mg/L	0.0100 U	-		-	-	-	-	-	-
Manganese	mg/L	5.24	4.85	4.40	3.85	4.12	3.72	3.56	3.61	3.11
Manganese (dissolved)	mg/L	4.97	-	-	-	-	-	-	-	--
Selenium	mg/L	0.0200 U	0.0200 U	0.0200 U	0.01 U	0.01 U	0.005 U	0.005 U	0.005 U	0.005 U
Selenium (dissolved)	mg/L	0.0200 U	-		-		-	-		
Dissolved Gas										
Ethane	ug/L	9 U	9 U	9 U	6.2 U	6.2 U	9 U	9 U	9 U	9 U
Ethene	ug/L	7 U	7 U	7 U	6.2 U	6.2 U	7 U	7 U	7 U	7 U
Methane	ug/L	200	180	120	120	64.2	21	10	5	10
Wet Chemistry										
Alkalinity, total (as CaCO3)	mg/L	49.4	38.1	49.4	41.4	41.3	34.1	24.4	31.6	24.0

Attachment D
Calculations for October 2017 Event

Attachment D

All Headers VOCs and HAPs Calculations
October 20, 2017 Pre-Carbon
Aqua-Tech Environmenta, Inc. Super Fund Site
Greer, Spartanburg County, South Carolina

	Acetone	Benzene[g]	Carbon Disulfide[g]	Chlorobenzene[g]	Chloroethane[g]	Chloromethane	1,1-Dichloroethane[g]	1,1-Dichloroethylene[g]	Dichlorodifluoro-methane
Molecular Weight [a]	58.08	78.11	76.14	112.6	64.52	50.46	98.96	96.94	120.91
Results in *µg/m³* [c]	18.3	11.9	3.7	1.5	4.3	0.0	96.8	9.0	21.4
Conversion of µg/m³ to mg/m³ [d]	0.02	0.01	0.00	0.00	0.00	0.00	0.10	0.01	0.02
Effluent Flow Rate (SCFM) ***355***									
mg/m³ to rate of lbs/hr [e]	0.00002	0.00002	0.00000	0.00000	0.00001	-	0.00013	0.00001	0.00003
lbs/hr to tons/yr [f]	0.000107	0.000069	0.000022	0.000009	0.000025	0.000000	0.000564	0.000052	0.000125

Notes:

a Molecular weight provided on laboratory report
b µg/m³ is the initial unit of measurement in which the compound is reported, reported on laboratory report
c Please refer to Equation 1 to the right
d 1,000 µg is equal to 1 mg
e Please refer to Equation 2 to the right
g These compounds are considered HAPs (Hazardous Air Pollutants)

µg/m³	micrograms per cubic meter
mg/m³	milligrams per cubic meter
SCFM	Standard cubic feet per minute
lbs/hr	pounds per hour
tons/yr	tons per year
ft³	cubic feet
L	liter
nL	nanoliter

Equations and Conversions

*Calculations made with assumption of standard Temperatur and Pressure, using the constant of 24.45 L air
*Example calculation using Acetone

1. *Micrograms per cubic meter to pounds per hour*

$$\frac{\left(\frac{26.6\mu g}{m^3}\right)\left(\frac{1mg}{1\times10^3\mu g}\right)\left(\frac{370ft^3}{\min}\right)\left(\frac{60\min}{hr}\right)}{\left(\frac{35.31ft^3}{m^3}\right)\left(\frac{453{,}592mg}{lb}\right)} = 0.0000$$

2. *Hourly rate to tons per year*

$$\left(\frac{0.0000368lb}{}\right)\left(\frac{24hr}{}\right)\left(\frac{365day}{}\right)\left(\frac{1ton}{}\right) =$$

Attachment D

All Headers VOCs and HAPs Calculations
October 20, 2017 Pre-Carbon
Aqua-Tech Environmenta, Inc. Super Fund Site
Greer, Spartanburg County, South Carolina

	Ethylbenzene [g]	*Freon 113*	*Methylene Chloride* [g]	*Methyl ethyl ketone* [g]	*Propylene*	*1,1,1-Trichloroethane* [g]	*1,2,4-Trimethylbenzene*	*1,3,5-Trimethylbenzene*	*Tetrachloroethylene* [g]
Molecular Weight [a]	106.2	187.4	84.94	72.11	42.08	133.4	120.2	120.2	165.8
Results in *μg/m³* [c]	10.3	199.0	11.1	0.0	0.0	391.0	1.8	0.0	3230.0
Conversion of μg/m³ to mg/m³ [d]	0.01	0.20	0.01	0.00	0.00	0.39	0.00	0.00	3.23
Effluent Flow Rate (SCFM) ***355***									
mg/m³ to rate of lbs/hr [e]	0.00001	0.00026	0.00001	-	-	0.00052	0.00000	-	0.00430
lbs/hr to tons/yr [f]	0.000060	0.001159	0.000065	0.000000	0.000000	0.002278	0.000010	0.000000	0.01881

Notes:

- a Molecular weight provided on laboratory report
- b μg/m3 is the initial unit of measurement in which the compound is reported, reported on laboratory report
- c Please refer to Equation 1 to the right
- d 1,000 *μg* is equal to 1 mg
- e Please refer to Equation 2 to the right
- g These compounds are considered HAPs (Hazardous Air Pollutants)

ppbv	parts per billion by volume
μg/m³	micrograms per cubic meter
mg/m³	milligrams per cubic meter
SCFM	Standard cubic feet per minute
lbs/hr	pounds per hour
tons/yr	tons per year
ft³	cubic feet
L	liter
nL	nanoliter

Equations and Conversions

*Calculations made with assumption of standard Temperature and Pressure, using the constant of 24.45 L air

*Example calculation using Acetone

1. *Micrograms per cubic meter to pounds per hour*

$$\frac{\left(\frac{26.6\mu g}{m^3}\right)\left(\frac{1mg}{1\times10^3\mu g}\right)\left(\frac{370ft^3}{\min}\right)\left(\frac{60\min}{hr}\right)}{\left(\frac{35.31ft^3}{m^3}\right)\left(\frac{453{,}592mg}{lb}\right)} = 0.0000368$$

2. *Hourly rate to tons per year*

$$\left(0.0000368\,lb\right)\left(24hr\right)\left(365day\right)\left(\frac{1ton}{\ldots}\right)$$

Attachment E
Laboratory Report

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 17, 2017

Paul McMahon
CRA
2055 Niagara Falls Boulevard
Suite #3
Niagara Falls, NY 14304

RE: Project: Aquatech
Pace Project No.: 92360495

Dear Paul McMahon:
Enclosed are the analytical results for sample(s) received by the laboratory on October 25, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This report was revised on November 17, 2017 to add THC as a Gas to the analyte list.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Terefe Mazengia, CRA

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CERTIFICATIONS

Project: Aquatech
Pace Project No.: 92360495

Minnesota Certification IDs
1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #:MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: MN00064
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon NwTPH Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DW Certification #: 9952 C
West Virginia DEP Certification #: 382
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: Aquatech
Pace Project No.: 92360495

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92360495001	**A-013926-102017-DJB-001**	Air	10/20/17 08:45	10/25/17 10:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Aquatech
Pace Project No.: 92360495

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92360495001	**A-013926-102017-DJB-001**	TO-15	NCK	59	PASI-M

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SUMMARY OF DETECTION

Project: Aquatech
Pace Project No.: 92360495

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92360495001	**A-013926-102017-DJB-001**					
TO-15	Acetone	18.3	ug/m3	3.0	11/01/17 22:29	
TO-15	Benzene	11.9	ug/m3	0.41	11/01/17 22:29	
TO-15	Carbon disulfide	3.7	ug/m3	0.79	11/01/17 22:29	
TO-15	Carbon tetrachloride	0.49J	ug/m3	0.81	11/01/17 22:29	
TO-15	Chlorobenzene	1.5	ug/m3	1.2	11/01/17 22:29	
TO-15	Chloroethane	4.3	ug/m3	0.68	11/01/17 22:29	
TO-15	Chloroform	15.0	ug/m3	0.62	11/01/17 22:29	
TO-15	Cyclohexane	16.1	ug/m3	0.88	11/01/17 22:29	
TO-15	1,2-Dichlorobenzene	6.6	ug/m3	1.5	11/01/17 22:29	
TO-15	1,3-Dichlorobenzene	1.6	ug/m3	1.5	11/01/17 22:29	
TO-15	1,4-Dichlorobenzene	18.8	ug/m3	1.5	11/01/17 22:29	
TO-15	Dichlorodifluoromethane	21.4	ug/m3	1.3	11/01/17 22:29	
TO-15	1,1-Dichloroethane	96.8	ug/m3	1.0	11/01/17 22:29	
TO-15	1,1-Dichloroethene	9.0	ug/m3	1.0	11/01/17 22:29	
TO-15	cis-1,2-Dichloroethene	2190	ug/m3	81.6	11/02/17 16:10	A3,IS
TO-15	trans-1,2-Dichloroethene	8.4	ug/m3	1.0	11/01/17 22:29	
TO-15	Dichlorotetrafluoroethane	18.5	ug/m3	1.8	11/01/17 22:29	
TO-15	Ethylbenzene	10.3	ug/m3	1.1	11/01/17 22:29	
TO-15	n-Heptane	5.3	ug/m3	1.0	11/01/17 22:29	
TO-15	n-Hexane	3.7	ug/m3	0.91	11/01/17 22:29	
TO-15	Methylene Chloride	11.1	ug/m3	4.4	11/01/17 22:29	
TO-15	Naphthalene	1.6J	ug/m3	3.4	11/01/17 22:29	
TO-15	1,1,2,2-Tetrachloroethane	2.1	ug/m3	0.88	11/01/17 22:29	
TO-15	Tetrachloroethene	3230	ug/m3	69.5	11/02/17 16:10	IS
TO-15	THC as Gas	4490	ug/m3	131	11/01/17 22:29	
TO-15	Toluene	66.2	ug/m3	2.4	11/01/17 22:29	
TO-15	1,1,1-Trichloroethane	391	ug/m3	112	11/02/17 16:10	IS
TO-15	Trichloroethene	2440	ug/m3	55.4	11/02/17 16:10	IS
TO-15	Trichlorofluoromethane	4.2	ug/m3	1.4	11/01/17 22:29	
TO-15	1,1,2-Trichlorotrifluoroethane	199	ug/m3	2.0	11/01/17 22:29	
TO-15	1,2,4-Trimethylbenzene	1.8	ug/m3	1.3	11/01/17 22:29	
TO-15	Vinyl chloride	85.6	ug/m3	0.33	11/01/17 22:29	
TO-15	m&p-Xylene	17.8	ug/m3	2.2	11/01/17 22:29	
TO-15	o-Xylene	44.8	ug/m3	1.1	11/01/17 22:29	

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PROJECT NARRATIVE

Project: Aquatech
Pace Project No.: 92360495

Method: **TO-15**
Description: TO15 MSV AIR
Client: GHD Services - Duluth, GA
Date: November 17, 2017

General Information:
1 sample was analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

QC Batch: 505923

IS: The internal standard response is below criteria. Results may be biased high.

- A-013926-102017-DJB-001 (Lab ID: 92360495001)
  - 1,1,1-Trichloroethane
  - Tetrachloroethene
  - Trichloroethene
  - cis-1,2-Dichloroethene

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 505923

A3: This result is reported from a serial dilution.

- A-013926-102017-DJB-001 (Lab ID: 92360495001)
  - cis-1,2-Dichloroethene

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Aquatech
Pace Project No.: 92360495

Sample: A-013926-102017-DJB-001 **Lab ID: 92360495001** Collected: 10/20/17 08:45 Received: 10/25/17 10:05 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Acetone	**18.3**	ug/m3	3.0	1.9	1.26		11/01/17 22:29	67-64-1	
Benzene	**11.9**	ug/m3	0.41	0.19	1.26		11/01/17 22:29	71-43-2	
Bromodichloromethane	ND	ug/m3	1.7	0.45	1.26		11/01/17 22:29	75-27-4	
Bromoform	ND	ug/m3	2.6	0.87	1.26		11/01/17 22:29	75-25-2	
Bromomethane	ND	ug/m3	1.0	0.26	1.26		11/01/17 22:29	74-83-9	
1,3-Butadiene	ND	ug/m3	0.57	0.26	1.26		11/01/17 22:29	106-99-0	
2-Butanone (MEK)	ND	ug/m3	3.8	0.26	1.26		11/01/17 22:29	78-93-3	
Carbon disulfide	**3.7**	ug/m3	0.79	0.23	1.26		11/01/17 22:29	75-15-0	
Carbon tetrachloride	**0.49J**	ug/m3	0.81	0.40	1.26		11/01/17 22:29	56-23-5	
Chlorobenzene	**1.5**	ug/m3	1.2	0.23	1.26		11/01/17 22:29	108-90-7	
Chloroethane	**4.3**	ug/m3	0.68	0.26	1.26		11/01/17 22:29	75-00-3	
Chloroform	**15.0**	ug/m3	0.62	0.29	1.26		11/01/17 22:29	67-66-3	
Chloromethane	ND	ug/m3	0.53	0.17	1.26		11/01/17 22:29	74-87-3	
Cyclohexane	**16.1**	ug/m3	0.88	0.29	1.26		11/01/17 22:29	110-82-7	
Dibromochloromethane	ND	ug/m3	2.2	0.56	1.26		11/01/17 22:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.0	0.42	1.26		11/01/17 22:29	106-93-4	
1,2-Dichlorobenzene	**6.6**	ug/m3	1.5	0.41	1.26		11/01/17 22:29	95-50-1	
1,3-Dichlorobenzene	**1.6**	ug/m3	1.5	0.59	1.26		11/01/17 22:29	541-73-1	
1,4-Dichlorobenzene	**18.8**	ug/m3	1.5	0.26	1.26		11/01/17 22:29	106-46-7	
Dichlorodifluoromethane	**21.4**	ug/m3	1.3	0.52	1.26		11/01/17 22:29	75-71-8	
1,1-Dichloroethane	**96.8**	ug/m3	1.0	0.27	1.26		11/01/17 22:29	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.52	0.25	1.26		11/01/17 22:29	107-06-2	
1,1-Dichloroethene	**9.0**	ug/m3	1.0	0.30	1.26		11/01/17 22:29	75-35-4	
cis-1,2-Dichloroethene	**2190**	ug/m3	81.6	34.4	100.8		11/02/17 16:10	156-59-2	A3,IS
trans-1,2-Dichloroethene	**8.4**	ug/m3	1.0	0.37	1.26		11/01/17 22:29	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.2	0.39	1.26		11/01/17 22:29	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	0.31	1.26		11/01/17 22:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	0.53	1.26		11/01/17 22:29	10061-02-6	
Dichlorotetrafluoroethane	**18.5**	ug/m3	1.8	0.56	1.26		11/01/17 22:29	76-14-2	
Ethyl acetate	ND	ug/m3	0.92	0.25	1.26		11/01/17 22:29	141-78-6	
Ethylbenzene	**10.3**	ug/m3	1.1	0.22	1.26		11/01/17 22:29	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.3	0.27	1.26		11/01/17 22:29	622-96-8	
n-Heptane	**5.3**	ug/m3	1.0	0.26	1.26		11/01/17 22:29	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.7	1.1	1.26		11/01/17 22:29	87-68-3	
n-Hexane	**3.7**	ug/m3	0.91	0.42	1.26		11/01/17 22:29	110-54-3	
2-Hexanone	ND	ug/m3	5.2	0.77	1.26		11/01/17 22:29	591-78-6	
Methylene Chloride	**11.1**	ug/m3	4.4	1.9	1.26		11/01/17 22:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.2	0.45	1.26		11/01/17 22:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	4.6	0.84	1.26		11/01/17 22:29	1634-04-4	
Naphthalene	**1.6J**	ug/m3	3.4	0.75	1.26		11/01/17 22:29	91-20-3	
Propylene	ND	ug/m3	1.1	0.20	1.26		11/01/17 22:29	115-07-1	
Styrene	ND	ug/m3	1.1	0.21	1.26		11/01/17 22:29	100-42-5	
1,1,2,2-Tetrachloroethane	**2.1**	ug/m3	0.88	0.37	1.26		11/01/17 22:29	79-34-5	
Tetrachloroethene	**3230**	ug/m3	69.5	28.9	100.8		11/02/17 16:10	127-18-4	IS
Tetrahydrofuran	ND	ug/m3	0.76	0.35	1.26		11/01/17 22:29	109-99-9	
THC as Gas	**4490**	ug/m3	131	65.4	1.26		11/01/17 22:29		

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Aquatech
Pace Project No.: 92360495

Sample: A-013926-102017-DJB-001 **Lab ID: 92360495001** Collected: 10/20/17 08:45 Received: 10/25/17 10:05 Matrix: Air

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Toluene	**66.2**	ug/m3	2.4	0.20	1.26		11/01/17 22:29	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	4.8	1.2	1.26		11/01/17 22:29	120-82-1	
1,1,1-Trichloroethane	**391**	ug/m3	112	34.5	100.8		11/02/17 16:10	71-55-6	IS
1,1,2-Trichloroethane	ND	ug/m3	0.69	0.28	1.26		11/01/17 22:29	79-00-5	
Trichloroethene	**2440**	ug/m3	55.4	27.0	100.8		11/02/17 16:10	79-01-6	IS
Trichlorofluoromethane	**4.2**	ug/m3	1.4	0.53	1.26		11/01/17 22:29	75-69-4	
1,1,2-Trichlorotrifluoroethane	**199**	ug/m3	2.0	0.46	1.26		11/01/17 22:29	76-13-1	
1,2,4-Trimethylbenzene	**1.8**	ug/m3	1.3	0.22	1.26		11/01/17 22:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	0.52	1.26		11/01/17 22:29	108-67-8	
Vinyl acetate	ND	ug/m3	0.90	0.20	1.26		11/01/17 22:29	108-05-4	
Vinyl chloride	**85.6**	ug/m3	0.33	0.16	1.26		11/01/17 22:29	75-01-4	
m&p-Xylene	**17.8**	ug/m3	2.2	0.44	1.26		11/01/17 22:29	179601-23-1	
o-Xylene	**44.8**	ug/m3	1.1	0.47	1.26		11/01/17 22:29	95-47-6	

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QUALITY CONTROL DATA

Project: Aquatech
Pace Project No.: 92360495

QC Batch: 505923 | Analysis Method: TO-15
QC Batch Method: TO-15 | Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 92360495001

METHOD BLANK: 2749855 | Matrix: Air
Associated Lab Samples: 92360495001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	0.34	11/01/17 10:14	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	0.29	11/01/17 10:14	
1,1,2-Trichloroethane	ug/m3	ND	0.55	0.22	11/01/17 10:14	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	0.37	11/01/17 10:14	
1,1-Dichloroethane	ug/m3	ND	0.82	0.21	11/01/17 10:14	
1,1-Dichloroethene	ug/m3	ND	0.81	0.24	11/01/17 10:14	
1,2,4-Trichlorobenzene	ug/m3	ND	3.8	0.96	11/01/17 10:14	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	0.17	11/01/17 10:14	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	0.33	11/01/17 10:14	
1,2-Dichlorobenzene	ug/m3	ND	1.2	0.33	11/01/17 10:14	
1,2-Dichloroethane	ug/m3	ND	0.41	0.20	11/01/17 10:14	
1,2-Dichloropropane	ug/m3	ND	0.94	0.31	11/01/17 10:14	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	0.41	11/01/17 10:14	
1,3-Butadiene	ug/m3	ND	0.45	0.21	11/01/17 10:14	
1,3-Dichlorobenzene	ug/m3	ND	1.2	0.47	11/01/17 10:14	
1,4-Dichlorobenzene	ug/m3	ND	1.2	0.21	11/01/17 10:14	
2-Butanone (MEK)	ug/m3	ND	3.0	0.20	11/01/17 10:14	
2-Hexanone	ug/m3	ND	4.2	0.61	11/01/17 10:14	
4-Ethyltoluene	ug/m3	ND	1.0	0.21	11/01/17 10:14	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	4.2	0.36	11/01/17 10:14	
Acetone	ug/m3	ND	2.4	1.5	11/01/17 10:14	
Benzene	ug/m3	ND	0.32	0.15	11/01/17 10:14	
Bromodichloromethane	ug/m3	ND	1.4	0.36	11/01/17 10:14	
Bromoform	ug/m3	ND	2.1	0.69	11/01/17 10:14	
Bromomethane	ug/m3	ND	0.79	0.21	11/01/17 10:14	
Carbon disulfide	ug/m3	ND	0.63	0.18	11/01/17 10:14	
Carbon tetrachloride	ug/m3	ND	0.64	0.32	11/01/17 10:14	
Chlorobenzene	ug/m3	ND	0.94	0.18	11/01/17 10:14	
Chloroethane	ug/m3	ND	0.54	0.20	11/01/17 10:14	
Chloroform	ug/m3	ND	0.50	0.23	11/01/17 10:14	
Chloromethane	ug/m3	ND	0.42	0.13	11/01/17 10:14	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	0.34	11/01/17 10:14	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	0.24	11/01/17 10:14	
Cyclohexane	ug/m3	ND	0.70	0.23	11/01/17 10:14	
Dibromochloromethane	ug/m3	ND	1.7	0.44	11/01/17 10:14	
Dichlorodifluoromethane	ug/m3	ND	1.0	0.42	11/01/17 10:14	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	0.44	11/01/17 10:14	
Ethyl acetate	ug/m3	ND	0.73	0.20	11/01/17 10:14	
Ethylbenzene	ug/m3	ND	0.88	0.17	11/01/17 10:14	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	0.87	11/01/17 10:14	
m&p-Xylene	ug/m3	ND	1.8	0.35	11/01/17 10:14	

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QUALITY CONTROL DATA

Project: Aquatech
Pace Project No.: 92360495

METHOD BLANK: 2749855 Matrix: Air
Associated Lab Samples: 92360495001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methyl-tert-butyl ether	ug/m3	ND	3.7	0.67	11/01/17 10:14	
Methylene Chloride	ug/m3	ND	3.5	1.5	11/01/17 10:14	
n-Heptane	ug/m3	ND	0.83	0.21	11/01/17 10:14	
n-Hexane	ug/m3	ND	0.72	0.33	11/01/17 10:14	
Naphthalene	ug/m3	ND	2.7	0.60	11/01/17 10:14	
o-Xylene	ug/m3	ND	0.88	0.37	11/01/17 10:14	
Propylene	ug/m3	ND	0.88	0.16	11/01/17 10:14	MN
Styrene	ug/m3	ND	0.87	0.17	11/01/17 10:14	
Tetrachloroethene	ug/m3	ND	0.69	0.29	11/01/17 10:14	
Tetrahydrofuran	ug/m3	ND	0.60	0.27	11/01/17 10:14	
THC as Gas	ug/m3	ND	104	51.9	11/01/17 10:14	
Toluene	ug/m3	ND	1.9	0.16	11/01/17 10:14	MN
trans-1,2-Dichloroethene	ug/m3	ND	0.81	0.30	11/01/17 10:14	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	0.42	11/01/17 10:14	
Trichloroethene	ug/m3	ND	0.55	0.27	11/01/17 10:14	
Trichlorofluoromethane	ug/m3	ND	1.1	0.42	11/01/17 10:14	
Vinyl acetate	ug/m3	ND	0.72	0.16	11/01/17 10:14	
Vinyl chloride	ug/m3	ND	0.26	0.13	11/01/17 10:14	

LABORATORY CONTROL SAMPLE: 2749856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	58.7	106	70-134	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	74.0	106	70-130	
1,1,2-Trichloroethane	ug/m3	55.5	56.7	102	70-130	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	82.1	105	70-130	
1,1-Dichloroethane	ug/m3	41.1	41.4	101	70-130	
1,1-Dichloroethene	ug/m3	40.3	42.9	106	70-130	
1,2,4-Trichlorobenzene	ug/m3	75.4	85.0	113	60-150	
1,2,4-Trimethylbenzene	ug/m3	50	57.2	115	70-136	
1,2-Dibromoethane (EDB)	ug/m3	78.1	89.0	114	70-130	
1,2-Dichlorobenzene	ug/m3	61.1	71.8	118	70-139	
1,2-Dichloroethane	ug/m3	41.1	44.2	108	70-130	
1,2-Dichloropropane	ug/m3	47	47.6	101	70-131	
1,3,5-Trimethylbenzene	ug/m3	50	54.6	109	70-133	
1,3-Butadiene	ug/m3	22.5	21.8	97	70-130	
1,3-Dichlorobenzene	ug/m3	61.1	71.4	117	70-144	
1,4-Dichlorobenzene	ug/m3	61.1	69.6	114	70-139	
2-Butanone (MEK)	ug/m3	30	32.1	107	70-130	
2-Hexanone	ug/m3	104	109	105	70-138	
4-Ethyltoluene	ug/m3	50	54.6	109	70-135	
4-Methyl-2-pentanone (MIBK)	ug/m3	104	104	100	70-130	
Acetone	ug/m3	121	119	99	64-130	
Benzene	ug/m3	32.5	33.0	102	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Aquatech
Pace Project No.: 92360495

LABORATORY CONTROL SAMPLE: 2749856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromodichloromethane	ug/m3	68.1	74.4	109	70-134	
Bromoform	ug/m3	105	131	124	70-150	
Bromomethane	ug/m3	39.5	43.3	110	70-130	
Carbon disulfide	ug/m3	31.6	34.0	107	70-134	
Carbon tetrachloride	ug/m3	64	70.4	110	68-150	
Chlorobenzene	ug/m3	46.8	50.2	107	70-132	
Chloroethane	ug/m3	26.8	29.2	109	70-132	
Chloroform	ug/m3	49.6	52.6	106	70-130	
Chloromethane	ug/m3	21	19.8	94	70-130	
cis-1,2-Dichloroethene	ug/m3	40.3	42.5	105	70-133	
cis-1,3-Dichloropropene	ug/m3	46.1	48.8	106	70-137	
Cyclohexane	ug/m3	35	35.1	100	70-130	
Dibromochloromethane	ug/m3	86.6	102	118	70-144	
Dichlorodifluoromethane	ug/m3	50.3	49.9	99	70-130	
Dichlorotetrafluoroethane	ug/m3	71	70.7	99	70-130	
Ethyl acetate	ug/m3	36.6	36.7	100	70-130	
Ethylbenzene	ug/m3	44.1	46.6	106	70-134	
Hexachloro-1,3-butadiene	ug/m3	108	120	111	45-150	
m&p-Xylene	ug/m3	88.3	95.3	108	70-130	
Methyl-tert-butyl ether	ug/m3	91.6	93.9	102	66-148	
Methylene Chloride	ug/m3	177	180	102	67-133	
n-Heptane	ug/m3	41.6	40.4	97	70-130	
n-Hexane	ug/m3	35.8	35.9	100	67-132	
Naphthalene	ug/m3	53.3	60.3	113	53-150	
o-Xylene	ug/m3	44.1	48.2	109	70-130	
Propylene	ug/m3	17.5	18.1	103	70-135	
Styrene	ug/m3	43.3	48.0	111	70-139	
Tetrachloroethene	ug/m3	68.9	73.2	106	70-130	
Tetrahydrofuran	ug/m3	30	29.5	99	70-130	
THC as Gas	ug/m3	5170	4520	87	63-150	
Toluene	ug/m3	38.3	44.6	116	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	43.5	108	70-131	
trans-1,3-Dichloropropene	ug/m3	46.1	50.6	110	70-142	
Trichloroethene	ug/m3	54.6	58.2	106	70-130	
Trichlorofluoromethane	ug/m3	57.1	61.5	108	70-130	
Vinyl acetate	ug/m3	35.8	36.6	102	70-137	
Vinyl chloride	ug/m3	26	25.3	97	70-130	

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QUALIFIERS

Project: Aquatech
Pace Project No.: 92360495

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

A3	This result is reported from a serial dilution.
IS	The internal standard response is below criteria. Results may be biased high.
MN	The reporting limit has been raised in accordance with Minnesota Statutes 4740.2100 Subpart 8. C, D. Reporting Limit Evaluation Rule.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Aquatech
Pace Project No.: 92360495

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92360495001	**A-013926-102017-DJB-001**	TO-15	505923		

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

29722

Page: ___ of

Section A Required Client Information:

Company: GHD
Address: 3075 Breckinridge
Duluth, GA 30096
Email To:
Phone: 770 441 - Fax: 0027
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: Aquatech
Project Number: 013926

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #:

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other___

Location of Sampling by State ___

Reporting Units: ug/m³ ___ mg/m³ ___ PPBV ___ PPMV ___ Other ___

Report Level II.___ III.___ IV.___ Other___

Method: PM10 | 3C - Fixed Gas (%) | TO-3 BTEX | TO-3M (Methane) | TO-14 | TO-15 Full List VOCs | TO-15 Short List BTEX | TO-15 Short List Chlorinated | TO-15 Short List (other)

Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	PM10	3C - Fixed Gas (%)	TO-3 BTEX	TO-3M (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX	TO-15 Short List Chlorinated	TO-15 Short List (other)	Pace Lab ID
1	A-013926-102017-DJB-001	A		10/20/17	8:45			-30	0	575						X					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] GHD	10/23/17	9:30	[illegible] PACE	10-25-17	1005

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
—	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY)

ORIGINAL

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414 Air Technical Phone: 612.607.6386

FC046Rev.01, 03Feb2010

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 16Oct2017 Page 1 of 1
	Document No.: F-MN-A-106-rev.13	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: GHD

Project #:

Courier: ☑ Fed Ex ☐ UPS ☐ Speedee ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 7476 3002 4666

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ Foam ☐ None ☐ Tin Can ☐ Other: **Temp Blank rec:** ☐ Yes ☑ No

Temp. (TO17 and TO13 samples only) (°C): X **Corrected Temp (°C):** X **Thermom. Used:** ☐ 151401163 ☐ G87A9155100842

Temp should be above freezing to 6°C **Correction Factor:** X **Date & Initials of Person Examining Contents:** 10-25-17 AA

Type of ice Received ☐ Blue ☐ Wet ☑ None

				Comments:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☑ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Media: (Air Can) Airbag Filter TDT Passive				11. Individually Certified Cans Y (N) (list which samples)
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.

Samples Received: Stand alone gauge

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
DSB-001				+5					

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Media Order # 1029441

Sent to Can Room 10/11/17 01:31 PM NB
Report Printed 10/25/2017 11:07 AM

Ordered By:	Ship To:	Return To:
Contact: Terefe Mazengia	**Contact:** Terefe Mazengia	**Contact:** Taylor Ezell
Company: GHD	**Company:** GHD	**Lab Name:** PACE - CHA
Address: 3075 Breckinridge Blvd Suite 470	**Address:** 3075 Breckinridge Blvd Suite 470	**Address:** 6701 Conference Dr
City, St, ZIP: Duluth, GA, 30096	**City, St, ZIP:** Duluth, GA, 30096	**City, St, ZIP:** Raleigh, NC, 27607
Phone:	**Phone:**	**Phone:** 704-305-8602

Initiator: Nathan Boberg **PM:** Nathan Boberg **Profile Number:** 12619
Proj. Description: Aqua-Tech Enviornme **Quote Number:** **Shipping Method:** FedEx
Needs Bottles By: 10/13/2017 PM **Expected Return Date:** 10/20/2017 **Tracking #:**

Return Shipping Labels	CoC's	Bottle Labels	Bottles
☐ No Shipper Number	☒ Blank # 1	☐ Blank	☐ Boxed Cases
☒ With Shipper Number	☐ Preprinted	☐ Pre-Printed - With Sample IDs	☐ Individually Wrapped
		☐ Pre-Printed - No Sample IDs	☐ Grouped By Sample ID/Matrix

Miscellaneous

☒ Sampling Instructions	☐ Coolers	☐ Short Hold/Rush Stickers
☒ Custody Seal	☐ Extra Bubble Wrap	☐ DI Water
☐ Temperature Blanks	☐ 10 mL Cut-Off Syringes	

☐ Trip Blank

Notes: Matt-okay; IR= T.Ezell

Qty	Method	Media Specification	Certification Level	Notes
1	TO-15	6 L Canister	Low Level (0.1 - 0.2 ppbv)	
1	Canister Attachments	Sampling Gauge		
1	Other Misc.	Fitting/Ferrule/Tubing/Filter		

Hazard Shipping Placard In Place:

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with you project manager.
*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.
*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.
*Payment term are net 30 days.
*Please include the proposal number on the chain of custody to insure proper billing

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