FINAL
ABBREVIATED
2015 LONG-TERM MONITORING REPORT
FOR
AIR FORCE PLANT 59
JOHNSON CITY, NEW YORK

Contract Number FA8903-15-F-0038

Project Number:
ACHQ20157001
CDRL A008

Prepared for

Air Force Civil Engineer Center

Prepared by

HydroGeoLogic, Inc.

April 2016

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LIST OF ACRONYMS AND ABBREVIATIONS

AFCEC	Air Force Civil Engineer Center
AFP 59	Air Force Plant 59
cis-1,2-DCE	cis-1,2-dichloroethene
COPC	chemicals of potential concern
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
FSP	Field Sampling Plan
GEL	GEL Laboratories
HGL	HydroGeoLogic, Inc.
LTM	long-term monitoring
µg/L	micrograms per liter
MCL	maximum contaminant level
ng/L	nanograms per liter
NYSDEC	New York State Department of Environmental Conservation
PCE	tetrachloroethene
TAL	Test America Laboratory
1,1,1-TCA	1,1,1-trichloroethane
TCA	trichloroethane
TCE	trichloroethene
trans-1,2-DCE	trans-1,2-dichloroethene
USEPA	U.S. Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compounds

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1.0 INTRODUCTION

HydroGeoLogic, Inc. (HGL) prepared this Final Abbreviated 2015 Long-Term Monitoring Report for the Air Force Civil Engineer Center (AFCEC), under Contract FA8903-15-F-0038, Project Number ACHQ20157001, for the long-term monitoring (LTM) activities at Air Force Plant 59 (AFP 59) in Johnson City, New York (Figure 1). The purpose of this abbreviated monitoring report is to review the LTM activities; outline the sample collection procedures; summarize the results; and provide conclusions and recommendations based on the results of the LTM activities.

1.1 PURPOSE OF THE LONG-TERM MONITORING ACTIVITIES

Based on the conclusions presented in the *Final Remedial Investigation Report* (Earth Tech, 1996) and recommendations made by the New York State Department of Environmental Conservation (NYSDEC), it was determined that volatile organic compounds (VOC) represent the only chemicals of potential concern (COPC) in the groundwater at AFP 59. The LTM objectives for this project were to sample and evaluate VOC levels in groundwater that are above current maximum contaminant level (MCL) standards.

Groundwater samples were collected in accordance with the procedures found in the AFP 59 *Final Field Sampling Plan (FSP) Addendum* (HGL, 2015a). Samples were collected from monitoring wells and analyzed at Test America Laboratory (TAL) for VOCs (U.S. Environmental Protection Agency [USEPA] Method 8260B) and 1,4-dioxane (USEPA Method 8270C). Samples collected from Johnson City municipal well JC2, as part of the LTM program, were analyzed at TAL for VOCs (USEPA Method 8260B) and GEL Laboratories (GEL) for 1,4-dioxane (USEPA Drinking Water Method 522). LTM activities included sampling the following monitoring wells: SW1, DW1, SW3, DW3, SW4, SW7, BM-121, URS-2D, URS-2S, URS-3D, and URS-5S. The LTM also included sampling municipal well JC2 (before treatment by air stripper). Monitoring wells SW1 and DW1 represent upgradient (background) wells, and monitoring wells SW3 and DW3 represent downgradient wells. Five monitoring wells (BM-121, URS-2D, URS-2S, URS-3D, and URS-5S) and one municipal well (JC2) are located off site, to the west and south of the site.

1.2 PROCEDURES USED FOR THE LONG-TERM MONITORING ACTIVITIES

Sampling activities followed protocols presented in the *Final Work Plan Base Long-Term Monitoring at AFP 59* (HGL, 2015b) and the *Final Field Sampling Plan Addendum* (HGL, 2015a). In November 2015, HGL collected groundwater samples from six on-site AFP 59

monitoring wells (SW1, DW1, SW3, DW3, SW4, and SW7); five off-site monitoring wells (BM-121, URS-2D, URS-2S, URS-3D, and URS-5S); and one municipal well (JC2). All of the monitoring well groundwater samples were analyzed for VOCS by USEPA Method SW8260B and 1,4-dioxane using USEPA Method SW8270C. The water sample collected from the municipal well (JC2) was analyzed for VOCS by USEPA Method SW8260B and 1,4-dioxane using USEPA Drinking Water Method 522.

All of the monitoring wells were sampled using micropurge methodology. This is a low flow-rate well purging and sampling method that induces laminar (non-turbulent) flow in the immediate vicinity of the sampling pump intake, thereby drawing groundwater directly from the sampled aquifer horizontally through the monitoring well screen and into the sampling device. The monitoring wells were purged to evacuate stagnant water in the wells and to obtain a sample that is most representative of the aquifer. During purging, the temperature, pH, specific conductivity, and turbidity were measured and recorded on each monitoring well sampling form. The municipal well sample was collected from a sampling valve after a 5-minute purge. Groundwater parameters were recorded immediately after the sample collection. The field forms and calibration forms are appended as Attachment 1.

1.3 ANALYTICAL RESULTS FROM THE LONG-TERM MONITORING ACTIVITIES

The following subsections discuss the analytical results obtained from groundwater samples collected from both on-site and off-site monitoring wells. The VOCs detected in groundwater samples are illustrated on Figure 2. The analytical results for all groundwater samples collected during the November 2015 sampling event are summarized in Table 1. The laboratory reports and data validation reports are appended as Attachments 2 and 3, respectively. Data validation flags utilized in this document are detailed in Attachment 4 and reflect Table 8.2.1.5-1 in the Final Quality Assurance Project Plan (AECOM, 2009).

1.3.1 Shallow Zone of the Aquifer

VOCs were detected in the groundwater samples collected from on-site monitoring wells SW3, SW4, and SW7, and off-site monitoring wells URS-2S and URS-5S (refer to Figure 2). Chlorinated hydrocarbons were detected in the samples collected from the shallow zone of the aquifer in November 2015. VOCs were not detected in the groundwater samples collected from on-site monitoring well SW1 or off-site monitoring well BM-121.

The following results represent the maximum concentrations of contaminants detected in the groundwater samples collected from on-site monitoring wells during the November 2015 event:

- SW3
    - trichloroethene (TCE) at 0.42 F micrograms per liter (µg/L);
    - cis-1,2-dichloroethene (cis-1,2-DCE) at 0.27 F µg/L; and
    - 1,1,1- trichloroethane (1,1,1-TCA) at 0.24 F µg/L.

- SW4
    - 1,1,1-TCA at 0.64 F µg/L;
    - 1,1-dichloroethane (1,1-DCA) at 0.58 F µg/L;
    - cis-1,2-DCE at 2.7 µg/L;
    - tetrachloroethene (PCE) at 0.32 F µg/L; and
    - TCE at 4.9 µg/L.
- SW7
    - 1,1,1-TCA at 1.8 µg/L;
    - 1,1-DCA at 5.1 µg/L;
    - 1,1-dichloroethene (1,1-DCE) at 0.52 F µg/L;
    - PCE at 0.70 F µg/L;
    - cis-1,2-DCE at 40 µg/L;
    - trans-1,2-dichloroethene (trans-1,2-DCE) at 0.16 F µg/L;
    - vinyl chloride (VC) at 1.2 F µg/L; and
    - TCE at 9.5 µg/L.
- URS-2S
    - 1,1-DCA at 1.3 µg/L;
    - 1,1,1-TCA at 2.4 µg/L;
    - TCE at 2.8 µg/L; and
    - cis-1,2-DCE at 1.8 µg/L.
- URS-5S
    - 1,1,1-TCA at 0.52 F µg/L; and
    - TCE at 0.56 F µg/L.

Exceedances occurred above the New York State Groundwater Quality Standard of 5 µg/L for cis-1,2-DCE and TCE at well SW7. These results are highlighted on Figure 2.

During the November 2015 sampling event, 1,4-dioxane was sampled in the four on-site and three off-site shallow monitoring wells. 1,4-Dioxane was detected in monitoring wells SW4, SW7, URS-2S, URS-5S, and BM-121 at concentrations of 1.6 micrograms per liter (μg/L), 6 μg/L, 12 μg/L, 0.40 F μg/L, and 0.40 F μg/L, respectively. 1,4-Dioxane was not detected in monitoring wells SW1 and SW3.

1.3.2 Deep Zone of the Aquifer

VOCs were detected in the groundwater samples collected from one on-site monitoring well, (DW3) and two off-site monitoring wells (URS-2D and URS-3D) (refer to Figure 2). Chlorinated hydrocarbons were the only VOCs detected in the samples collected from the deep zone of the aquifer. The VOCs detected in monitoring well DW3 include cis-1,2-DCE at 50 µg/L and 1,1-DCA at 0.31 F µg/L. The following maximum concentrations were detected in the groundwater sample collected from the off-site monitoring well URS-2D: 1,1-DCA at 0.20 F µg/L; and cis-1,2-DCE at 61 µg/L. Additionally, the following maximum concentrations were detected in the groundwater sample collected from the off-site monitoring well URS-3D: 1,1,1-TCA at 1.0 µg/L; TCE at 1.6 µg/L; and cis-1,2-DCE at 0.90 F µg/L. Cis-1,2-DCE exceeded the New York State Groundwater Quality Standard of 5 µg/L in on-site well DW3 and off-site well URS-2D. Also, 1,4-dioxane was sampled in both the on-site and off-site deep monitoring wells. 1,4-Dioxane was only detected in monitoring wells DW3 at 6.7 μg/L; URS-2D at 21 μg/L; and URS-3D at 5.8 μg/L.

1.3.3 Municipal Well

VOCs were detected in the untreated water sample collected from a sample port at municipal well JC2. Detected VOCs constituents at JC2 included: 1,1,1-TCA at 0.33 F µg/L; TCE at 0.39 F µg/L; and cis-1,2-DCE at 0.24 F µg/L. 1,4-Dioxane was detected at 0.896 F µg/L in water sampled from JC2.

1.4 TREND ANALYSIS

Concentrations of the most commonly detected chlorinated hydrocarbons in groundwater at AFP 59 over time are presented in Table 2. Only monitoring wells that were sampled as part of the groundwater monitoring program are included in the table.

In the groundwater samples collected from the shallow monitoring wells during the November 2015 sampling event, concentrations of the chlorinated hydrocarbons in monitoring well SW3 decreased slightly (1,1,1-TCA, TCE, and cis-1,2-DCE), compared to the previous sampling event in November 2014.

The concentrations of the chlorinated hydrocarbons in monitoring well SW4 remained relatively constant, with only moderate variations in TCE and cis-1,2-DCE concentrations when compared to the November 2014 sampling event. TCE concentrations increased from 3.4 µg/L in November 2014 to 4.9 µg/L in November 2015. Other increases in concentrations during the November 2015 sampling event include: cis-1,2-DCE (1.7 µg/L to 2.7 µg/L) and 1,1-dichloroethane (1,1-DCA) (ND to 0.58 F µg/L). As compared to the November 2014 sampling event, the concentrations of TCA and 1,1-DCE decreased slightly during the November 2015 sampling event (0.75 F µg/L to 0.64 F µg/L and 0.46 F µg/L to ND, respectively).

Concentrations of chlorinated compounds at SW7 showed slight increases and decreases during the November 2015 sampling event relative to the November 2014 sampling event. A comparison of November 2014 and November 2015 concentrations of trans-1,2-DCE (0.20 F

µg/L to 0.16 F µg/L), TCA (1.9 µg/L to 1.8 µg/L), and 1,1-DCE (0.67 F µg/L to 0.52 F µg/L) indicated only a slight decrease. A comparison of November 2014 to November 2015 concentrations of TCE (7.8 µg/L to 9.5 µg/L), VC (0.78 F µg/L to 1.2 F µg/L), 1,1-DCA (4.6 µg/L to 5.1 µg/L), and cis-1,2 DCE (33 µg/L to 40 µg/L) indicated essentially no change/slight increase or a low to moderate increase.

Concentrations of chlorinated compounds at shallow monitoring well URS-2S indicated primarily minor decreases during the November 2015 sampling event relative to the November 2014 sampling event. A comparison of November 2014 and November 2015 concentrations of TCA (4.1 µg/L to 2.4 µg/L), TCE (3.7 µg/L to 2.8 µg/L), 1,1-DCE (0.32 F µg/L to ND) and 1,1-DCA (2.1 µg/L to 1.3 µg/L) indicated minor to only slight decreases. A comparison of November 2014 and November 2015 sampling event concentrations of cis-1,2-DCE (1.2 µg/L to 1.8 µg/L) indicated a minor increase.

The groundwater sample collected during the November 2015 sampling event from deep monitoring well DW3, revealed chlorinated hydrocarbons to be below detection limits (TCA, TCE, VC, 1,1-DCE, and trans-1,2-DCE) or showed a very minor increase (cis-1,2 DCE) or decrease (1,1-DCA). The groundwater sample collected in November 2015 at deep monitoring well DW1 indicated non-detection for all VOCs compounds, including TCA, which had a detection of 0.19 F µg/L in November 2014. VOCs were not detected in the groundwater sample collected from shallow monitoring well SW1. These results are consistent with previous sampling events.

Detectable concentrations of cis-1,2-DCE (61 µg/L) and 1,1-DCA (0.20 F µg/L) were found in the groundwater sample collected from off-site deep monitoring well URS-2D in November 2015. The cis-1,2-DCE result for the November 2015 sampling event (61 µg/L) indicated a decrease relative to the November 2014 sampling event (67 µg/L). The 1,1-DCA analytical result in November 2015 (0.20 F µg/L) was similar to the analytical result from November 2014 (0.27 F µg/L). All other VOCs constituent concentrations were below detection limits (non-detection).

Concentrations of chlorinated compounds at Johnson City Municipal Well JC2 remained relatively unchanged based on a comparison of November 2014 and November 2015 groundwater sampling analytical data. A comparison of November 2014 and November 2015 concentrations of TCA (0.24 F µg/L to 0.33 F µg/L), TCE (0.33 F µg/L to 0.39 F µg/L) and cis-1,2-DCE (0.23 F µg/L to 0.24 F µg/L) indicated low detections with only minor increases and are relatively unchanged.

2.0 CONCLUSIONS AND RECOMMENDATIONS

Concentrations of cis-1,2-DCE continued to exceed the New York State Groundwater Quality Standard of 5 µg/L in shallow monitoring well SW7. Additionally, the concentration of TCE at well SW7 exceeded the New York State Groundwater Quality Standard of 5 µg/L during the November 2015 sampling event. Groundwater concentrations detected in off-site shallow

monitoring wells URS-2S and URS-5S did not exceed the New York State Groundwater Quality Standard of 5 µg/L for chlorinated compounds.

Concentrations of cis-1,2-DCE exceeded the New York State Groundwater Quality Standard of 5 µg/L in the deeper portion of the aquifer. Monitoring well DW3, located on the AFP 59 boundary downgradient of the suspected source, and monitoring well URS-2D, located at a downgradient off-site location, exceeded the New York State Groundwater Quality Standard for cis-1,2-DCE during the November 2015 groundwater sampling event.

Analytical results from water samples collected from municipal well JC2 revealed all contaminants to be below New York State Groundwater Quality Standards.

Based on the results of these LTM activities, groundwater exceeding the New York State Groundwater Quality Standards is migrating off AFP 59 property in the deep monitoring wells. Additional groundwater monitoring is recommended to monitor the migration of contaminants off site.

3.0 REFERENCES

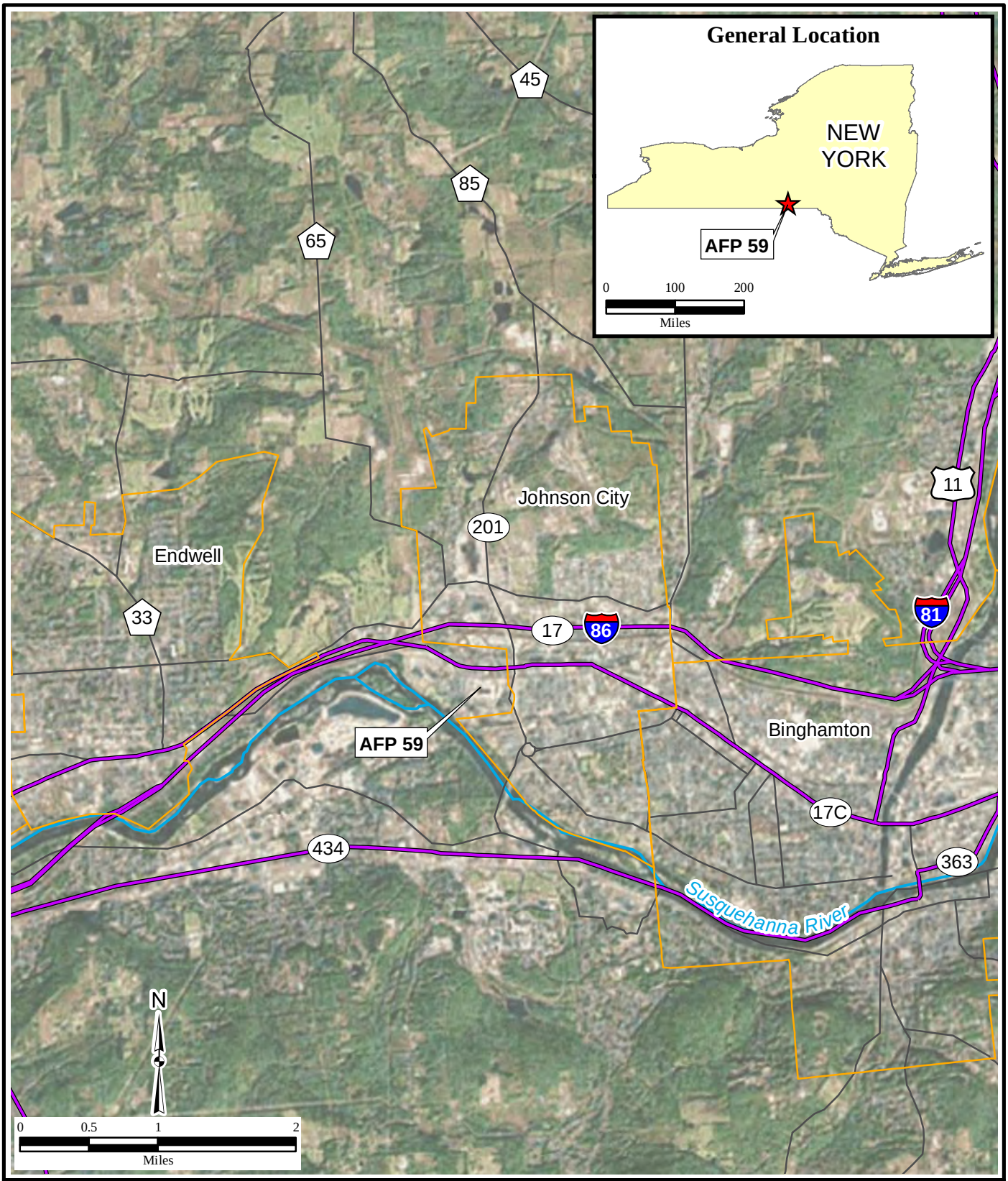
AECOM, 2009. *Final Quality Assurance Project Plan for the Vapor Intrusion Investigation, Groundwater Monitoring Activities, and Well Abandonment at Air Force Plant 59, Johnson City, New York*. August.

Earth Tech, 1996. *Installation Restoration Program - Final Remedial Investigation Report, Air Force Plant 59*.

HydroGeoLogic, Inc. (HGL), 2015a. *Final Field Sampling Plan Addendum, Basewide Long-Term Monitoring at Air Force Plant 59, Johnson City, New York*. December.

HGL, 2015b. *Final Work Plan, Basewide Long-Term Monitoring at Air Force Plant 59, Johnson City, New York*. December.

FIGURES



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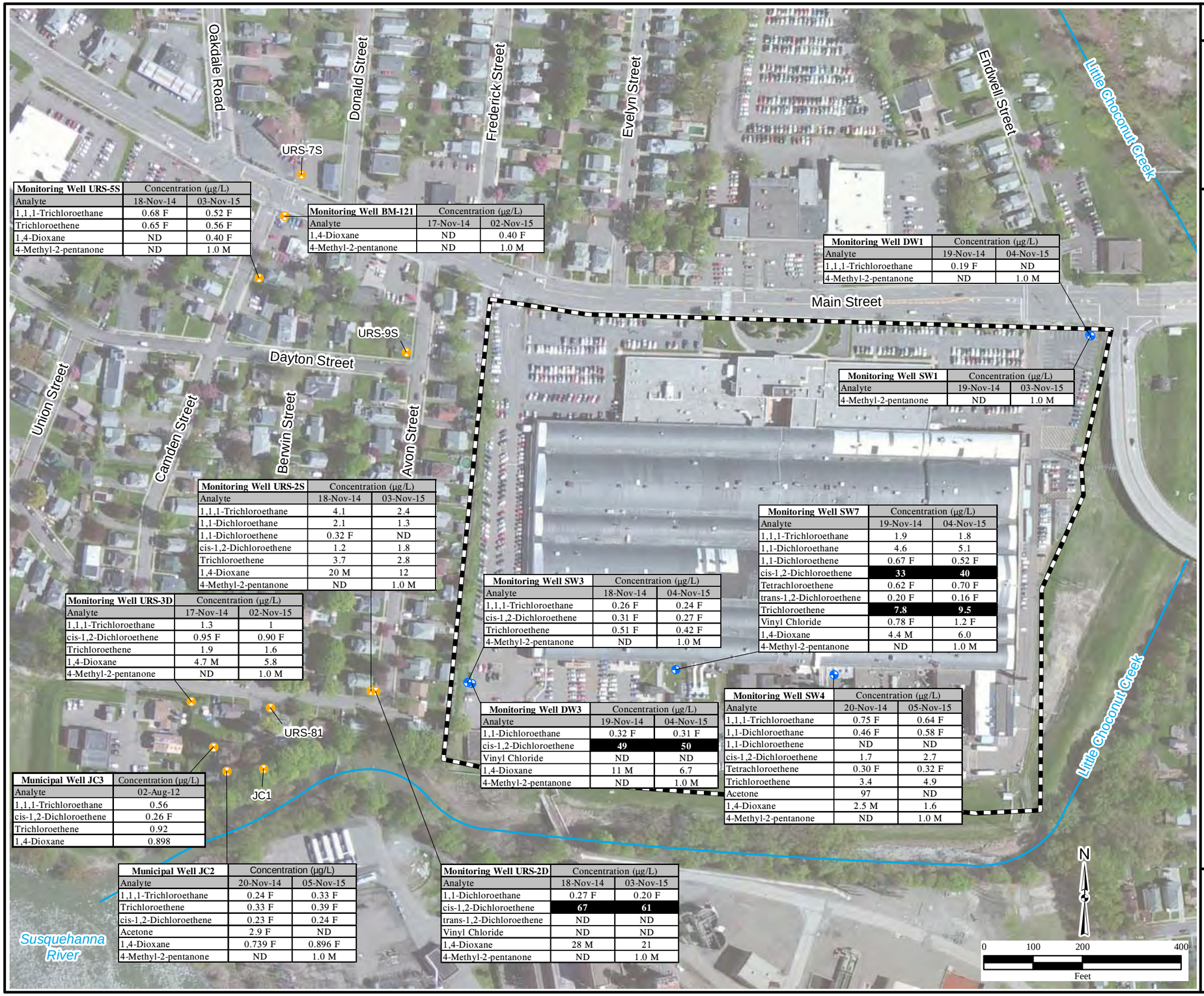
1/14/2016 TB
Source: HGL, ESRI, ArcGIS Online Bing Maps Aerial

Legend

- Major Road
- Highway
- City Limit
- Surface Water Course

Figure 1
Site Location
AFP 59

Figure 2
Groundwater Sampling Results November 2014 and November 2015 On-site and Off-site Monitoring Wells



Monitoring Well URS-5S	Concentration (µg/L)	
Analyte	18-Nov-14	03-Nov-15
1,1,1-Trichloroethane	0.68 F	0.52 F
Trichloroethene	0.65 F	0.56 F
1,4-Dioxane	ND	0.40 F
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well BM-121	Concentration (µg/L)	
Analyte	17-Nov-14	02-Nov-15
1,4-Dioxane	ND	0.40 F
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well DW1	Concentration (µg/L)	
Analyte	19-Nov-14	04-Nov-15
1,1,1-Trichloroethane	0.19 F	ND
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well SW1	Concentration (µg/L)	
Analyte	19-Nov-14	03-Nov-15
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well URS-2S	Concentration (µg/L)	
Analyte	18-Nov-14	03-Nov-15
1,1,1-Trichloroethane	4.1	2.4
1,1-Dichloroethane	2.1	1.3
1,1-Dichloroethene	0.32 F	ND
cis-1,2-Dichloroethene	1.2	1.8
Trichloroethene	3.7	2.8
1,4-Dioxane	20 M	12
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well SW7	Concentration (µg/L)	
Analyte	19-Nov-14	04-Nov-15
1,1,1-Trichloroethane	1.9	1.8
1,1-Dichloroethane	4.6	5.1
1,1-Dichloroethene	0.67 F	0.52 F
cis-1,2-Dichloroethene	**33**	**40**
Tetrachloroethene	0.62 F	0.70 F
trans-1,2-Dichloroethene	0.20 F	0.16 F
Trichloroethene	**7.8**	**9.5**
Vinyl Chloride	0.78 F	1.2 F
1,4-Dioxane	4.4 M	6.0
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well URS-3D	Concentration (µg/L)	
Analyte	17-Nov-14	02-Nov-15
1,1,1-Trichloroethane	1.3	1
cis-1,2-Dichloroethene	0.95 F	0.90 F
Trichloroethene	1.9	1.6
1,4-Dioxane	4.7 M	5.8
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well SW3	Concentration (µg/L)	
Analyte	18-Nov-14	04-Nov-15
1,1,1-Trichloroethane	0.26 F	0.24 F
cis-1,2-Dichloroethene	0.31 F	0.27 F
Trichloroethene	0.51 F	0.42 F
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well DW3	Concentration (µg/L)	
Analyte	19-Nov-14	04-Nov-15
1,1-Dichloroethane	0.32 F	0.31 F
cis-1,2-Dichloroethene	**49**	**50**
Vinyl Chloride	ND	ND
1,4-Dioxane	11 M	6.7
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well SW4	Concentration (µg/L)	
Analyte	20-Nov-14	05-Nov-15
1,1,1-Trichloroethane	0.75 F	0.64 F
1,1-Dichloroethane	0.46 F	0.58 F
1,1-Dichloroethene	ND	ND
cis-1,2-Dichloroethene	1.7	2.7
Tetrachloroethene	0.30 F	0.32 F
Trichloroethene	3.4	4.9
Acetone	97	ND
1,4-Dioxane	2.5 M	1.6
4-Methyl-2-pentanone	ND	1.0 M

Municipal Well JC3	Concentration (µg/L)
Analyte	02-Aug-12
1,1,1-Trichloroethane	0.56
cis-1,2-Dichloroethene	0.26 F
Trichloroethene	0.92
1,4-Dioxane	0.898

Municipal Well JC2	Concentration (µg/L)	
Analyte	20-Nov-14	05-Nov-15
1,1,1-Trichloroethane	0.24 F	0.33 F
Trichloroethene	0.33 F	0.39 F
cis-1,2-Dichloroethene	0.23 F	0.24 F
Acetone	2.9 F	ND
1,4-Dioxane	0.739 F	0.896 F
4-Methyl-2-pentanone	ND	1.0 M

Monitoring Well URS-2D	Concentration (µg/L)	
Analyte	18-Nov-14	03-Nov-15
1,1-Dichloroethane	0.27 F	0.20 F
cis-1,2-Dichloroethene	**67**	**61**
trans-1,2-Dichloroethene	ND	ND
Vinyl Chloride	ND	ND
1,4-Dioxane	28 M	21
4-Methyl-2-pentanone	ND	1.0 M

Legend

- AFP 59 Monitoring Well
- Off-site Monitoring Well
- URS-9S — Monitoring Well Identification
- Surface Water Course
- Air Force Plant 59

Notes:

35.3 M =Shaded values indicate a New York State (NYS) groundwater effluent Class GA exceedance.
J=The analyte was posively detected but the quantitation is an estimation
F= The analyte was positively identified but the associated numerical value is below the reporting limit.
M=Matrix Effect. The analyte concentration was estimated due to matrix effect and therefore estimated.
ND=Analyte not detected above laboratory method detection limits.
NS=Monitoring well "Not Sampled" during event.
VOC=volatile organic compound
µg/L=microgram per liter

After Air Stripper Sample	Concentration (µg/L)
Analyte	10-Oct-13
All Analytes	All VOCs ND

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1/14/2016 TB
Source: HGL, ESRI, AECOM, ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

TABLES

Table 1
Summary of Detected VOCs
November 2015

Method	Analyte	NYS GW Effluent Limitations Class GA	Units	59DW1WG1 11/4/2015 280-76497-6	59DW3WG1 11/4/2015 280-76497-17	59JC2WG1 11/5/2015 280-76497-16	59SW1WG1 11/3/2015 280-76497-7	59SW3WG1 11/4/2015 280-76497-8	59BM121WG1 11/2/2015 280-76497-2	59SW7WG1 11/4/2015 280-76497-9	59URS2DWG1 11/3/2015 280-76497-3	59URS2SWG1 11/3/2015 280-76497-4
VOLATILES by Method 8260B	1,1-Dichloroethane	5	µg/L	0.16 U	0.31 F	0.16 U	0.16 U	0.16 U	0.16 U	5.1	0.20 F	1.3
	Tetrachloroethene	5	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.70 F	0.20 U	0.20 U
	1,1,1-Trichloroethane	5	µg/L	0.16 U	0.16 U	0.33 F	0.16 U	0.24 F	0.16 U	1.8	0.16 U	2.4
	Vinyl chloride	2	µg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	1.2 F	0.10 U	0.10 U
	1,1-Dichloroethene	5	µg/L	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.52 F	0.14 U	0.14 U
	trans-1,2-Dichloroethene	5	µg/L	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.16 F	0.15 U	0.15 U
	Trichloroethene	5	µg/L	0.16 U	0.16 U	0.39 F	0.16 U	0.42 F	0.16 U	**9.5**	0.16 U	2.8
	4-Methyl-2-pentanone	5	µg/L	1.0 M	1.0 M	1.0 M	1.0 M	1.0 M	1.0 M	1.0 M	1.0 M	1.0 M
	cis-1,2-Dichloroethene	5	µg/L	0.15 U	**50**	0.24 F	0.15 U	0.27 F	0.15 U	**40**	**61**	1.8
SEMI-VOLATILES by Method 8270C	1,4-Dioxane	NS	µg/L	0.082 U	6.7	0.896 F	0.082 U	0.083 U	0.40 F	6.0	21	12
FIELD PARAMETERS	Temperature, Initial	NS	° Celsius	12.37	14.88	-	14.98	15.90	12.29	14.43	12.59	12.70
	Temperature, Final		° Celsius	12.48	14.37	13.32	13.74	15.92	12.22	14.09	12.82	13.22
	pH		Std units	6.9	6.83	6.17	6.68	6.78	7.63	6.90	6.88	6.53
	Specific Conductance		mS/cm	1.445	1.514	1.054	1.981	1.431	0.687	1.403	1.453	1.338
	ORP		mV	83.3	-18.7	163.4	100.0	128.3	-156.8	59.7	-41.2	24.2
	Dissolved Oxygen		mg/L	2.6	0.58	3.06	0.80	2.66	0.69	0.41	1.51	0.93
	Turbidity		NTU	144	7.78	0.08	1.48	0.17	14.1	7.88	82.9	29.2

Notes:

F - The analyte was positively identified but the associated numerical value is below the reporting limit (RL).

M - A matrix effect present.

U - The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.

NA - Not Applicable

NS - No Standard

< 2.5 - Non-Detect

6.5 - NYS GW Effluent; Class GA exceedances

Bolded numbers are detections

Duplicate Sample/Parent Sample Associations:

1 - Sample 59DUP01WG1 is a duplicate of parent sample 59SW4WG1.

2 - Sample 59DUP02WG1 is a duplicate of parent sample 59DW3WG1. Duplicate only of 1,4-Dioxane analysis.

Table 1
Summary of Detected VOCs
November 2015

Method	Analyte	NYS GW Effluent Limitations Class GA	Units	59URS3DWG1 11/2/2015 280-76497-1	59URS5SWG1 11/3/2015 280-76497-5	59EB110515 11/5/2015 280-76497-14EB	TB110415 11/4/2015 280-76497-15TB	TB110215 11/2/2015 280-76497-18TB	59DUP01WG1 11/5/2015 280-76497-11FD	59DUP02WG1 11/19/2014 280-62916-13FD	59AB110515 11/5/2015 280-76497-13FB	59SW4WG1 11/5/2015 280-76497-10
VOLATILES by Method 8260B	1,1-Dichloroethane	5	µg/L	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.59 F	-	0.16 U	0.58 F
	Tetrachloroethene	5	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.32 F	-	0.20 U	0.32 F
	1,1,1-Trichloroethane	5	µg/L	1.0	0.52 F	0.16 U	0.16 U	0.16 U	0.66 F	-	0.16 U	0.64 F
	Vinyl chloride	2	µg/L	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	-	0.10 U	0.10 U
	1,1-Dichloroethene	5	µg/L	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	-	0.14 U	0.14 U
	trans-1,2-Dichloroethene	5	µg/L	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	-	0.15 U	0.15 U
	Trichloroethene	5	µg/L	1.6	0.56 F	0.16 U	0.16 U	0.16 U	5.2	-	0.16 U	4.9
	4-Methyl-2-pentanone	5	µg/L	1.0 M	1.0 M	1.0 M	1.0 M	1.0 M	1.0 M	-	1.0 M	1.0 M
	cis-1,2-Dichloroethene	5	µg/L	0.90 F	0.15 U	0.15 U	0.15 U	0.15 U	2.8	-	0.15 U	2.7
SEMI-VOLATILES by Method 8270C	1,4-Dioxane	NS	µg/L	5.8	0.40 F	0.083 U			1.6	8.1		1.6
FIELD PARAMETERS	Temperature, Initial	NS	° Celsius	12.37	13.25							13.26
	Temperature, Final		° Celsius	12.48	12.81							13.29
	pH		Std units	6.90	6.90							6.66
	Specific Conductance		mS/cm	1.445	1.453							1.302
	ORP		mV	83.3	63.1							112.3
	Dissolved Oxygen		mg/L	2.60	1.02							2.60
	Turbidity		NTU	144	16.2							2.87

Notes:

F - The analyte was positively identified but the associated numerical value is below the reporting limit (RL).

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NA - Not Applicable

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<2.5	- Non-Detect
6.5	- NYS GW Effluent; Class GA exceedances

Bolded numbers are detections

Duplicate Sample/Parent Sample Associations:

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Table 2
Trend Analysis of VOCs in Groundwater

Well ID	Date Sampled	Concentrations of Analyte in Groundwater µg/L						
		TCA	TCE	VC	1,1-DCE	*trans* - 1,2 DCE	1,1-DCA	*cis* - 1,2 DCE
SW1	Sep-86	–	–	–	–	–	–	–
	Jan-92	0.5	–	–	–	–	–	–
	Dec-94	–	–	–	–	–	–	–
	Nov-99	–	–	–	–	–	–	–
	May-00	–	–	–	–	–	–	–
	Nov-00	–	–	–	–	–	–	–
	May-01	–	–	–	–	–	–	–
	Nov-01	0.11 J	–	–	–	–	–	–
	May-02	–	–	–	–	–	–	–
	Nov-02	–	–	–	–	–	–	–
	May-03	–	–	–	–	–	–	–
	Nov-03	–	–	–	–	–	–	–
	Jun-04	–	–	–	–	–	–	–
	Nov-04	–	–	–	–	–	–	–
	Oct-05	–	–	–	–	–	–	–
	Jun-08	–	–	–	–	–	–	–
	Nov-08	NS	NS	NS	NS	NS	NS	NS
	Nov-09	–	–	–	–	–	–	–
	Nov-10	0.11	–	–	–	–	–	–
	CY2011	NA	NA	NA	NA	NA	NA	NA
	Aug-12	–	–	–	–	–	–	–
	Oct-13	–	–	–	–	–	–	–
	Nov-14	–	–	–	–	–	–	–
	Nov-15	–	–	–	–	–	–	–
DW1	Jan-92	0.6	–	–	–	–	–	–
	Dec-94	–	–	–	–	–	–	1.8
	Nov-99	–	–	–	–	–	–	–
	May-00	–	–	–	–	–	–	–
	Nov-00	–	–	–	–	–	–	–
	May-01	–	–	–	–	–	–	–
	Nov-01	–	–	–	–	–	–	–
	May-02	–	–	–	–	–	–	–
	Nov-02	–	–	–	–	–	–	–
	May-03	–	–	–	–	–	–	–
	Nov-03	–	–	–	–	–	–	–
	Jun-04	–	–	–	–	–	–	–
	Nov-04	–	–	–	–	–	–	–
	Oct-05	–	–	–	–	–	–	–
	Jun-08	–	–	–	–	–	–	–
	Nov-08	NS	NS	NS	NS	NS	NS	NS

Table 2
Trend Analysis of VOCs in Groundwater (continued)

Well ID	Date Sampled	Concentrations of Analyte in Groundwater µg/L						
		TCA	TCE	VC	1,1-DCE	*trans* - 1,2 DCE	1,1-DCA	*cis* - 1,2 DCE
DW1 (cont.)	Nov-09	–	–	–	–	–	–	–
	Nov-10	0.18	–	–	–	–	–	–
	CY2011	NA	NA	NA	NA	NA	NA	NA
	Aug-12	–	–	–	–	–	–	–
	Oct-13	–	–	–	–	–	–	–
	Nov-14	0.19 F	–	–	–	–	–	–
	Nov-15	–	–	–	–	–	–	–
SW3	Sep-86	–	**6**	–	–	–	–	–
	Jan-92	**12**	**9**	–	–	–	**5**	–
	Dec-94	0.5	1.8	–	–	–	–	–
	Dec-95	0.86	2.8	–	–	–	–	0.44
	Jul-97	–	1	–	–	–	–	–
	Nov-98	0.22	0.81	–	–	–	–	0.1
	Apr-99	0.51	0.71	–	–	–	–	0.17
	Nov-99	0.29	0.9	–	–	–	–	0.39
	May-00	0.69	1	–	–	–	0.55	1.29
	Nov-00	0.43	0.9	–	–	–	–	0.22
	May-01	0.46	0.8	–	–	–	0.32	1.29
	Nov-01	0.32 J	0.5 J	–	–	–	–	–
	May-02	0.42 J	0.8 J	–	–	–	0.46 J	–
	May-03	0.584 J	0.893 J	–	–	–	0.302 J	1.37 J
	Nov-03	0.398 J	0.856 J	–	–	–	–	0.511 J
	Jun-04	0.9 J	0.94 J	–	–	–	0.95 J	3.7
	Nov-04	0.52 J	1	0.26 J	–	–	0.38 J	1.5
	Oct-05	0.47 J	0.86 J	–	–	–	–	0.55 J
	Jun-08	0.661 J	1.31	–	–	–	0.403 J	1.45
	Nov-08	0.345 J	0.759 J	–	–	–	–	–
	Nov-09	0.367 J	0.62 J	–	–	–	–	0.539 J
	Nov-10	0.41	0.59	–	–	–	–	0.17
	CY2011	NA	NA	NA	NA	NA	NA	NA
	Aug-12	–	0.51	–	–	–	–	0.28 F
	Oct-13	–	0.70 F	–	–	–	–	1
	Nov-14	0.26 F	0.51 F	–	–	–	–	0.31 F
	Nov-15	0.24 F	0.42 F	–	–	–	–	0.27 F
DW3	Jan-92	0.3	–	–	–	–	0.3	–
	Dec-94	–	–	0.28	–	–	0.26	**36**
	Dec-95	–	–	–	–	–	–	**5.2**
	Apr-97	–	–	–	–	–	–	**41**
	Jul-97	–	–	–	–	–	–	**49**
	Nov-98	–	–	–	–	–	0.34	**66**
	Apr-99	–	–	0.28	0.11	–	0.35	**67**
	Nov-99	–	–	–	–	–	–	–

Table 2
Trend Analysis of VOCs in Groundwater (continued)

Well ID	Date Sampled	Concentrations of Analyte in Groundwater µg/L						
		TCA	TCE	VC	1,1-DCE	*trans* - 1,2 DCE	1,1-DCA	*cis* - 1,2 DCE
DW3 (cont.)	May-00	–	–	–	–	0.25	0.16	**24.98**
	Nov-00	–	–	–	–	–	–	**16.85**
	May-01	–	–	–	–	–	–	**13.29**
	Nov-01	–	–	–	–	–	–	**13.58**
	May-02	–	–	–	–	–	0.1 J	**21.08**
	May-03	–	–	–	–	–	–	–
	Nov-03	–	–	–	–	–	–	1.18 J
	Jun-04	–	–	–	–	–	–	1.3
	Nov-04	–	–	–	–	–	–	2.1
	Oct-05	–	–	–	–	–	–	3
	Jun-08	–	–	–	–	–	–	**73.1**
	Nov-08	–	–	–	–	–	0.41 J	**67.3**
	Nov-09	–	–	–	–	–	0.369 J	**64.3**
	Nov-10	–	–	–	–	–	–	**8.4**
	CY2011	NA	NA	NA	NA	NA	NA	NA
	Aug-12	–	–	–	–	–	0.32 F	**56**
	Oct-13	–	–	0.18 F	0.32 F	–	–	**57**
	Nov-14	–	–	–	–	–	0.32 F	**49**
	Nov-15	–	–	–	–	–	0.31 F	**50**
SW4	Jan-92	2	**97**	–	0.3	–	0.6	–
	Dec-94	**20**	**370**	–	2.1		**8.5**	**19**
	Dec-95	**34**	**1200**	–	4.9	2.1	**6.9**	**34**
	Apr-97	–	–	–	–	–	**7.1**	**71**
	Jul-97	**23**	**290**	–	–	–	–	**15**
	Nov-98	**8**	**46**	0.42	0.82	–	**9**	**10**
	Apr-99	1.9	**9.53**	–	–	–	0.87	1.85
	Nov-99	2.13	**9.5**	–	0.18	–	**7.7**	**7.15**
	May-00	2.88	**8**	0.11	0.21	0.49	1.67	4.3
	Nov-00	1.14	**15.2**	1.49	0.29	–	**15.25**	**11.18**
	May-01	3.35	**34**	–	0.36	0.38	1.3	3.19
	Nov-01	0.88	**5.7**	0.43 J	0.12 J	–	**7.18**	**5.27**
	May-02	2.54	**21.63**	–	0.34 J	–	0.79 J	2.07
	May-03	3.05 J	**9.09 J**	–	–	–	1.44 J	3.36 J
	Nov-03	2.03	4.63	–	–	–	0.93	1.93
	Jun-04	2.8	**41**	–	0.57 J	0.11	1.3	3.3
	Nov-04	3.1	**56**	–	0.88 J	0.19 J	1.4	4.1
	Oct-05	2.2	**43**	–	1		1.7	**6.3**
	Jun-08	2.98	**17.8**	–	0.751 J	0.364 J	1.51	4.35
	Nov-08	0.513 J	**12.7**	–	–	–	0.825 J	3.38
	Nov-09	1.38	**11.1**	–	–	–	0.536 J	1.85
	Nov-10	1.6	**48**	–	0.64	–	1.1	3.2

Table 2
Trend Analysis of VOCs in Groundwater (continued)

Well ID	Date Sampled	Concentrations of Analyte in Groundwater µg/L						
		TCA	TCE	VC	1,1-DCE	*trans* - 1,2 DCE	1,1-DCA	*cis* - 1,2 DCE
SW4 (cont.)	CY2011	NA	NA	NA	NA	NA	NA	NA
	Aug-12	0.66	**11**	–	–	–	0.64 F	2.3
	Oct-13	1.8	**6.6**	–	0.26 F	–	–	2.6
	Nov-14	0.75 F	3.4	–	0.46 F	–	–	1.7
	Nov-15	0.64 F	4.9	–	–	–	0.58 F	2.7
SW7	Dec-94	4.6	**56**	**6.2**	1	0.3	**33**	**150**
	Dec-95	2.2	**43**	**6.8**	0.8		**20**	**130**
	Jul-97	–	**17.8**	–	–	–	–	2
	Nov-98	2.5	**12.7**	**3.4**	0.65	0.28	**12**	**82**
	Apr-99	1.23	**15**	–	–	–	1.46	**5.25**
	Nov-99	1.01	**7.9**	–	0.19	–	3.38	**18.8**
	May-00	0.67	4	–	–	0.12	0.71	2.43
	Nov-00	0.91	**11**	0.52	0.15	–	3.48	**16.06**
	May-01	1.18	3.95	–	–	–	0.47	1.46
	Nov-01	0.8 J	**5.7**	0.85 J	0.19 J	0.13 J	3.02	**25.89**
	May-02	0.87 J	1.5	–	–	–	0.47 J	2.79
	May-03	1.5 J	3.8	–	–	–	0.409 J	1.43 J
	Nov-03	0.674 J	1.9	–	–	–	0.509	2.76
	Jun-04	1	1	–	–	–	0.3 J	1.1
	Nov-04	1.5	2.1	0.47 J	0.25 J	–	1.5 J	**10 J**
	Oct-05	0.73 J	3.1	–	–	–	1.4	**12**
	Jun-08	2.5	2.94	–	–	–	1.59	**6.34**
	Nov-08	1.88	**8.15**	1.21 M	–	0.302 J	**5.04**	**35.3 M**
	Nov-09	1.24	2.42	–	–	–	0.905 J	5.21
	Nov-10	1	2.4	1	0.21	0.096	0.58	4.3
	CY2011	NA	NA	NA	NA	NA	NA	NA
	Aug-12	2	**9.9**	1.2	0.65	0.21 F	**6.5**	**44**
	Oct-13	–	2.5	–	0.93 F	–	–	**7**
	Nov-14	1.9	**7.8**	0.78 F	0.67 F	0.20 F	4.6	**33**
	Nov-15	1.8	**9.5**	1.2 F	0.52 F	0.16 F	5.1	**40**
URS-2S	Jun-08	2.2	2.19	–	–	–	0.569 J	0.996 J
	Nov-09	2.99	2.79	–	–	–	1.07	1.46
	Nov-10	2.2	2.6	–	0.37 J	–	1.1	1.3
	CY2011	NA	NA	NA	NA	NA	NA	NA
	Jul-12	3.3	4.4	–	–	–	1.6	1.9
	Oct-13	1.6	2.3	–	–	–	1.1	1.2
	Nov-14	4.1	3.7	–	0.32 F	–	2.1	1.2
	Nov-15	2.4	2.8	–	–	–	1.3	1.8
URS-2D	Jun-08	–	–	0.354 J	–	–	0.339 J	**71.9**
	Nov-09	–	–	0.364 J	–	–	0.244 J	**72.7**
	Nov-10	–	–	0.22 J	–	0.11 J	0.23 J	**69**

Table 2
Trend Analysis of VOCs in Groundwater (continued)

Well ID	Date Sampled	Concentrations of Analyte in Groundwater µg/L						
		TCA	TCE	VC	1,1-DCE	*trans* - 1,2 DCE	1,1-DCA	*cis* - 1,2 DCE
URS-2D (cont.)	CY2011	NA	NA	NA	NA	NA	NA	NA
	Jul-12	–	–	0.22 J	–	–	0.27 J	**71**
	Oct-13	–	–	–	–	0.17 F	0.21 F	**62**
	Nov-14	–	–	–	–	–	0.27 F	**67**
	Nov-15	–	–	–	–	–	0.20 F	**61**
JC-2	Aug-12	NA	NA	NA	NA	NA	NA	NA
	Oct-13	0.36 F	0.48 F	–	–	–	–	0.29 F
	Nov-14	0.24 F	0.33 F	–	–	–	–	0.23 F
	Nov-15	0.33 F	0.39 F	–	–	–	–	0.24 F
JC-3	Aug-12	0.56	0.92	–	–	–	–	0.26 J
	Oct-13	NA	NA	NA	NA	NA	NA	NA
	Nov-14	NA	NA	NA	NA	NA	NA	NA
	Nov-15	NA	NA	NA	NA	NA	NA	NA

Notes:

"—": Analyte not detected above laboratory method detection limits

NS: Monitoring well "Not Sampled" during event

NA: Analytical data "Not Available" due to extensive flood event at site and surrounding area in CY2011.

Groundwater sampling not conducted in CY2011.

J: The analyte was positively detected, but the quantitaion is an estimation

F: The analyte was positively identified but the associated numerical value is below the reporting limit (RL).

M: Matrix Effect. The analyte concentration was estimated due to matrix effect and therefore estimated

Bolded numbers are exceedances

ATTACHMENT 1

FIELD FORMS

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: URS-3D	Location: AFP59
Sampler(s): MIKE Jackson	Project Name: AFP59 2015 GWS
Well Depth: 87.75+0.28 = 88.03	Project #: GS2049.04 Date: 11-2-15 Time: 1415
DTW (ft): 36.03 DTP Top (ft): 82.8	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface:	Sampling Method : BP
Condition of Bottom of Well: SOFT	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (65.33 - 95.33)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2-inch	clear/sunny, 60°, calm
Placement of Pump Inlet (ft): 83	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/- 0.1	Temp. (C) +/- 0.5	Cond. (~~umhos/cm~~) +/- 3% mS/cm	ORP (mv) +/- 10	DO (mg/L) +/- 10%	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1457	36.26	0.200	1.5	6.65	12.37	1.436	113.3	2.77	average	ORANGE, NMBH), FLOC
1502	36.29	0.200	2.5	6.62	12.35	1.437	113.7	2.71	average	
1507	36.34	0.200	3.5	6.68	12.22	1.444	109.3	2.65	average	
1512	36.36	0.200	4.5	6.72	12.24	1.441	102.5	2.64	817	
1517	36.38	0.200	5.5	6.74	12.22	1.442	99.4	2.66	635	
1522	36.41	0.100	6.0	6.77	12.31	1.442	96.7	2.64	398	
1527	36.42	0.100	6.5	6.79	12.40	1.442	95.3	2.63	356	
1532	36.45	0.100	7.0	6.84	12.51	1.443	92.1	2.75	327	
1537	36.47	0.100	7.5	6.86	12.54	1.444	91.3	2.76	286	
1542	36.47	0.100	8.0	6.87	12.57	1.443	90.7	2.72	259	
1547	36.49	0.100	8.5	6.88	12.58	1.444	88.9	2.69	225	
1552	36.50	0.100	9.0	6.89	12.57	1.444	87.4	2.69	187	
1557	36.34	0.100	9.5	6.90	12.54	1.445	84.9	2.61	148	
1602	36.32	0.100	10.0	6.90	12.53	1.445	83.5	2.65	114	
1607	36.31	0.100	10.5	6.90	12.48	1.445	83.3	2.60	144	
1649	collect		samples			(VOCs	&	1,4-Dioxane)		

cloudy

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: Pump # 29999 (QED 1.75-inch pump) Post Purge DTW = 36.04
YSI 556MPS (#08J101237), Hach 2100Q () #024735 Pine)
QED MP10 (Pine #030146), solinst model 101 (#59247) (100')
Eversmart marine battery (92, 500, 75) QED 3020 Compressor)
(# 4088, Pine), 1400 ft, Influence likely from nearby well
FIELD

Signed/Sampler(s):

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59URS3DWG1 DATE: 11-2-2015 TIME: 1609

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB 110215

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 0.0	COLOR: Clear cloudy	
2nd	ODOR: None	
	OTHER:	

pH 6.90 Temperature 12.48 (C) Dissolved Oxygen 2.60 (mg/L) Specific Conductivity 1.745 ~~(umhos/cm)~~ mS/cm

Iron — (mg/L) Oxidation/Reduction Potential 83.3 (mv) Turbidity 144 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION Calm AMBIENT TEMPERATURE 60°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) _x_____ OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE JACKSON OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZRDOUS SOLID WASTE
SE=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER
BP=BLADDER PUMP
PP=PERISTALIC PUMP
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: URS-3D

PROJECT NAME: AFP59

DATE/TIME: 11/2/15

CITY/STATE: Johnson City, NY

INSPECTED BY: MDJ

Water Level Indicator Serial No.: SOLINST model 101 (#59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF ~~PVC~~ SS)	87.75 + 0.28 = 88.03
WATER LEVEL DEPTH (FEET FROM TOP OF ~~PVC~~ SS)	36.03
~~PVC~~ SS WELL STICK-UP (FEET, ABOVE GRADE)	1.80
PROTECTIVE CASING STICK-UP (FEET, AGS)	1.94
WELL DIAMETER (INCHES)	2
WELL CONSTRUCTION (PVC, STEEL, ETC.)	STAINLESS STEEL

LOCKED UPON ARRIVAL?	(YES)	NO	(OLD CUT LOCK)
LOCK REPLACED?	YES	(NO)	
OBSTRUCTIONS?	YES	(NO)	
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO)	(If YES, detail in comments below)
WELL RELABELED?	YES	(NO)	
WELL PHOTOGRAPHED?	(YES)	NO	

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: BM-121	Location: AFP59
Sampler(s): MIKE JACKSON	Project Name: AFP59 2015 GWS
Well Depth: 56.07+0.28 = 56.35	Project #: GS2049.04 | Date: 11-2-15 Time: 1710
DTW (ft): 26.47 | DTP Top (ft): 3.18	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface: 3.2	Sampling Method: BP
Condition of Bottom of Well: SOFT	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (- 56.04)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): PARTLY cloudy, CALM, 58°
Well Diameter (in): 6	
Placement of Pump Inlet (ft): 51	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/-0.1	Temp. (C) +/-0.5	Cond. (~~umhos/cm~~) mS/cm +/-3%	ORP (mv) +/-10	DO (mg/L)	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
1732	26.62	0.200	0.500	7.84	12.29	0.660	-95.0	1.43	15.5	
1737	26.63	0.200	1.500	7.65	12.29	0.677	-134.1	0.97	14.4	
1742	26.63	0.200	2.500	7.63	12.27	0.681	-158.3	0.85	14.2	
1747	26.63	0.200	3.500	7.62	12.25	0.684	-169.0	0.78	14.0	
1752	26.63	0.200	4.500	7.62	12.25	0.686	-158.6	0.71	14.5	
1757	26.63	0.200	5.500	7.63	12.23	0.686	-146.2	0.67	14.0	
1802	26.63	0.200	6.500	7.63	12.22	0.687	-156.8	0.69	14.1	
1804	• COLLECT SAMPLES (VOCs & 1,4-DIOXANE).									

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: #12026 (QED 1.75-inch Sample Pump), POST PUMP INSTALL DTW = 26.36
YSI 556 MPS (#08J012237), Hach 2100Q (#024785, Pine),
QED MP10 (Pine #03J146), Bolost Model 101 (#59248) (100%)
~~OVERNIGHT MARINE BATTERY~~ MT QED 320 compressor (#4088, Pine)

Signed/Sampler(s): MDD. JL

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59BM121WG1 DATE: 11-2-15 TIME: 1804

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB11Ø215

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st Ø.Ø	COLOR: Clear	
2nd	ODOR: None	
	OTHER:	

pH 7.63 Temperature 12.22 (C) Dissolved Oxygen Ø.69 (mg/L) Specific Conductivity 0.687 ~~(umhos/cm)~~ mS/cm

Iron — (mg/L) Oxidation/Reduction Potential -156.8 (mv) Turbidity 14.1 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR _____ OVERCAST/RAIN _____ WIND DIRECTION Calm AMBIENT TEMPERATURE 58°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) _x_____ OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE Jackson OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZRDOUS SOLID WASTE
SE=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER
BP=BLADDER PUMP
PP=PERISTALIC PUMP
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: BM-121

PROJECT NAME: AFP59

DATE/TIME: 11-2-15 1824

CITY/STATE: Johnson City, NY

INSPECTED BY: MDJ

Water Level Indicator Serial No.: SOLINST Model 101 ~~MS#59244~~ (#59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF ~~PVC~~ STEEL): STEEL 56.07 + 0.28 = 56.35

WATER LEVEL DEPTH (FEET FROM TOP OF ~~PVC~~ STEEL): 26.47

~~PVC~~ WELL STICK-UP (FEET, ABOVE GRADE): 3.18

PROTECTIVE CASING STICK-UP (FEET, AGS): NO PROTECTIVE CASING

WELL DIAMETER (INCHES): 6

WELL CONSTRUCTION (PVC, STEEL, ETC.): MS ~~PVC~~ STEEL

LOCKED UPON ARRIVAL?	(YES)	NO	SCREWED SHUT
LOCK REPLACED?	YES	(NO)	
OBSTRUCTIONS?	YES	(NO)	
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO)	(If YES, detail in comments below)
WELL RELABELED?	YES	(NO)	
WELL PHOTOGRAPHED?	(YES)	NO	

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

CHRYSLER BOAT ON FLUSH MOUNT

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: URS-2D	Location: AFP59
Sampler(s): MIKE JACKSON	Project Name: AFP59 2015 GWS
Well Depth: 90.24+0.28 = 90.52	Project #: GS2049.04 Date: 11-3-15 Time: 0815
DTW (ft): 31.46 DTP Top (ft):	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface:	Sampling Method : BP
Condition of Bottom of Well:	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (65 - 90)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2 (SS)	Clear, Sunny, 55°
Placement of Pump Inlet (ft): 83	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/-0.1	Temp. (C) +/-0.5	Cond. (~~umhos/cm~~) mS/cm +/-3%	ORP (mv) +/-10	DO (mg/L)	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
0837	31.45	0.200	0.0	6.73	12.59	1.292	21.9	2.91	38.0	
0842	31.45	0.200	1.0	6.80	12.71	1.417	-9.2	1.78	40.1	
0847	31.45	0.200	2.0	6.83	12.76	1.445	-23.5	1.33	69.4	
0852	31.45	0.200	3.0	6.85	12.78	1.450	-32.1	1.29	82.5	
0857	31.45	0.200	4.0	6.86	12.81	1.451	-36.2	1.91	86.6	
0902	31.45	0.200	5.0	6.87	12.82	1.452	-38.7	1.88	84.4	
0907	31.45	0.200	5.5	6.88	12.82	1.453	-41.2	1.51	82.9	
0909	Collect Samples (VOCs & 1,4-Dioxane)									

Observations

Color: ~~Clear~~ Other (describe): ~~Clear~~/cloudy ←

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: Pump # 29999 (QED 1.75-inch pump), POST pump INSTALL DTW = 31.45'
YSI 556 MPS (# 08J101237), Hach 2100 Q (# 024785) (Pine)
QED MP10 (Pine # 030140), Solinst model 101 (#594243 (100'))
QED 3000 compressor (Pine # 4088), EVERSTART MARINE BATTERY

Signed/Sampler(s): MJD JR

FIELD SAMPLING REPORT

LOCATION:	AFP59	PROJECT NAME:	AFP59 2015 GWS
SITE:	AFP59	PROJECT NO:	GS2049.04

SAMPLE INFORMATION

SAMPLE ID: 59URS2DWG1

DATE: 11-3-15 TIME: 0909

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): T611 0315

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 0.0	COLOR: cloudy	
2nd	ODOR: none	
	OTHER:	

pH 6.88 Temperature 12.82 (C) Dissolved Oxygen 1.51 (mg/L) Specific Conductivity 1.453 ~~(umhos/cm)~~ mS/cm

Iron — (mg/L) Oxidation/Reduction Potential -41.2 (mv) Turbidity 82.9 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION _____ AMBIENT TEMPERATURE 55°

SHIPMENT VIA: FEDEX _____ HAND DELIVER ~~X~~ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE Jackson OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS	SL=SLUDGE
WG=GROUND WATER	SO=SOIL
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER
SE=SEDIMENT	SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER	G=GRAB
BP=BLADDER PUMP	HA=HAND AUGER
PP=PERISTALIC PUMP	H=HOLLOW STEM AUGER
CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: URS-2D

PROJECT NAME: AFP59

DATE/TIME: 11-3-15

CITY/STATE: Johnson City, NY

INSPECTED BY: MJT

Water Level Indicator Serial No.: Solinst Model 101 (100') (#59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF ~~PVC~~ SS)	90.24 + 0.28 = 90.52
WATER LEVEL DEPTH (FEET FROM TOP OF ~~PVC~~ SS)	31.46
PVC WELL STICK-UP (FEET, ~~ABOVE~~ Below GRADE)	-0.36 (FLUSH MOUNT)
PROTECTIVE CASING STICK-UP (FEET, AGS)	N/A (FLUSH MOUNT)
WELL DIAMETER (INCHES)	2
WELL CONSTRUCTION (PVC, (STEEL), ETC.)	SS

LOCKED UPON ARRIVAL?	(YES)	NO ← BOLTED
LOCK REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO) (If YES, detail in comments below)
WELL RELABELED?	YES	(NO)
WELL PHOTOGRAPHED?	(YES)	NO

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS: MJT CHRYSLER Lock Bolt TOP.

Normal 9/16" Bolt well Box cover

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: URS-2S	Location: AFP59
Sampler(s): MIKE JACKSON	Project Name: AFP59 2015 GWS
Well Depth: 58.35 +0.28 = 58.63	Project #: GS2049.04 Date: 11-3-15 Time: 0955
DTW (ft): 31.61 DTP Top (ft): 53.25	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface: -0.26	Sampling Method : BP
Condition of Bottom of Well: SAFT	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (35.45 - 60.45)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2 (STAINLESS STEEL)	SUNNY/CLEAR, X_MT CALM, 56°
Placement of Pump Inlet (ft): 53.45	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/-0.1	Temp. (C) +/-0.5	Cond. (~~umhos/cm~~) mS/cm +/-3%	ORP (mv) +/-10	DO (mg/L)	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
1026	31.85	0.2	0.5	6.84	12.70	1.256	52.7	2.03	158	ORANGE FLOC
1031	31.85	0.2	1.5	6.73	12.85	1.261	31.6	1.2	151	
1036	31.85	0.2	2.5	6.67	12.89	1.262	26.7	1.34	180	
1041	31.85	0.2	3.5	6.62	12.92	1.262	25.3	1.30	198	
1046	31.85	0.2	4.5	6.59	12.94	1.262	25.8	0.91	187	
1051	31.85	0.2	5.5	6.56	12.96	1.263	26.0	0.90	166	
1056	31.85	0.2	6.5	6.54	12.98	1.264	27.0	0.84	150	
1101	31.85	0.2	7.5	6.52	12.99	1.266	29.0	0.82	130	
1106	31.85	0.2	8.5	6.50	13.02	1.271	30.2	0.83	110	
1111	31.85	0.2	9.5	6.49	13.04	1.282	30.2	0.86	85.3	
1116	31.85	0.2	10.5	6.49	13.05	1.295	29.0	0.89	66.5	
1121	31.85	0.2	11.5	6.50	13.07	1.306	27.8	0.91	52.0	
1126	31.85	0.2	12.5	6.51	13.14	1.320	26.2	0.92	38.9	
1131	31.85	0.2	13.5	6.50	13.13	1.330	27.1	0.94	35.2	
1136	31.85	0.2	14.5	6.53	13.22	1.338	24.2	0.93	29.2	
1138	COLLECT SAMPLES					(VOCs) &		0	1,4-DIOXANE)	

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: PUMP# 12026 (QED Sample Pro 1.75-inch), POST PUMP INSTALL DTW = 31.62', YSI 556 MPS (#08J101237), HACH 2100Q (#0247-85, Pine), QED MP10 (Pinett 03046), SOLINST MODE 101 (#59244) (100'), QED 3420 Compressor (Pine #4088), EVERSTART MARINE BATTERY

Signed/Sampler(s): MJ JL

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59URS2SGW1 DATE: 11-3-15 TIME: 1138

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): ✓

TRIP BLANK (TB): TB11Φ215

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st Φ.Φ	COLOR: clear	
2nd	ODOR: none	
	OTHER:	

pH 6.53 Temperature 13.22 (C) Dissolved Oxygen 0.93 (mg/L) Specific Conductivity 1.338 ~~(umhos/cm)~~ mS/cm

Iron — (mg/L) Oxidation/Reduction Potential 24.2 (mv) Turbidity 29.2 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION calm AMBIENT TEMPERATURE 56°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE JACKSON OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZRDOUS SOLID WASTE
SE=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER
BP=BLADDER PUMP
PP=PERISTALIC PUMP
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: URS-2S

PROJECT NAME: AFP59

DATE/TIME: 11-3-15

CITY/STATE: Johnson City, NY

INSPECTED BY: MDT

Water Level Indicator Serial No.: SOLINST Model 101 (100') (# 59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF ~~PVC~~ 55)	58.35 + 0.28 = 58.63
WATER LEVEL DEPTH (FEET FROM TOP OF ~~PVC~~ 55)	31.61
~~PVC~~ 55 WELL STICK-UP (FEET, ~~ABOVE~~ below GRADE)	-0.26 (FLUSH MOUNT)
PROTECTIVE CASING STICK-UP (FEET, AGS)	N/A (FLUSH MOUNT)
WELL DIAMETER (INCHES)	2
WELL CONSTRUCTION (PVC, STEEL, ETC.)	STAINLESS STEEL

LOCKED UPON ARRIVAL?	YES	(NO)	BOLTED SHUT
LOCK REPLACED?	YES	(NO)	
OBSTRUCTIONS?	YES	(NO)	
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO)	(If YES, detail in comments below)
WELL RELABELED?	YES	(NO)	
WELL PHOTOGRAPHED?	(YES)	NO	

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

MS+ MSD

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: URS-5S	Location: AFP59
Sampler(s): Mike Jackson	Project Name: AFP59 2015 GWS
Well Depth: 66.04 + 0.28 = 66.32	Project #: GS2049.04 Date: 11-3-15 Time: 1320
DTW (ft): 22.97 DTP Top (ft): 58.80	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/(Below) Ground Surface: 1.04	Sampling Method : BP
Condition of Bottom of Well:	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (-)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2 (stainless steel)	Sunny/clear, slight wind, 60°
Placement of Pump Inlet (ft): 59'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/-0.1	Temp. (C) +/-0.5	Cond. (~~umhos/cm~~ mS/cm +/-3%)	ORP (mv) +/-10	DO (mg/L)	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
1354	22.97	0.260	0.500	7.21	13.25	1.365	67.7	2.12	133	
1359	22.97	0.240	1.500	7.02	13.13	1.437	62.2	1.44	89.5	
1404	22.97	0.260	2.500	6.95	13.00	1.447	60.3	1.18	55.6	
1409	22.97	0.260	3.500	6.91	12.89	1.451	60.5	1.09	41.2	
1414	22.97	0.260	4.500	6.90	12.85	1.453	61.6	1.14	36.7	
1419	22.97	0.260	5.500	6.89	12.84	1.454	61.8	1.10	29.0	
1424	22.97	0.260	6.500	6.90	12.87	1.453	62.3	1.07	23.9	
1429	22.97	0.260	7.500	6.89	12.82	1.453	62.8	1.01	17.3	
1434	22.97	0.260	8.500	6.90	12.81	1.453	63.1	1.02	16.2	
1436	Collect samples (VOCs & 1,4-Dioxane) (MS+MSD)									

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: Pump # 12026 (QED Sample Pro 1.75-inch) Post Purge DTW #1 DTW = 22.97, YSI 556 MPS (# ~~085~~ 05101237), Hach 2100Q (#24785, Pine), QED MP10 (Pine # 03146), Solinst model 101 (100') (#59244), QED 3020 Compressor (Pine # 4088).

Signed/Sampler(s):

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59URS5SWG1 DATE: 11-3-15 TIME: 1436

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB X COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED H THIS SAMPLE:

MATRIX SPIKE (MS): 59URS5SWG1-MS

MATRIX SPIKE DUP (SD): 59URS5SWG1-MSD

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB11Ø215

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs 8260B
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st Ø.Ø	COLOR: Clear	
2nd	ODOR: None	
	OTHER:	

pH 6.9Ø Temperature 12.81 (C) Dissolved Oxygen 1.Ø2 (mg/L) Specific Conductivity 1.453 ~~(umhos/cm)~~ mS/cm

Iron — (mg/L) Oxidation/Reduction Potential 63.1 (mv) Turbidity 16.2 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION Slight Wind AMBIENT TEMPERATURE 60°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE JACKSON OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZRDOUS SOLID WASTE
SE=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER
BP=BLADDER PUMP
PP=PERISTALIC PUMP
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: URS-5S

PROJECT NAME: AFP59

DATE/TIME: 11-3-15

CITY/STATE: Johnson City, NY

INSPECTED BY: MDS

Water Level Indicator Serial No.: Solinst model 101 (100') (#59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF ~~PVC~~ SS)	66.04 + 0.28 = 66.32
WATER LEVEL DEPTH (FEET FROM TOP OF ~~PVC~~ SS)	22.97
~~PVC~~ SS WELL STICK-UP (FEET, ~~ABOVE~~ Below GRADE)	-1.04 (Flush Mount)
PROTECTIVE CASING STICK-UP (FEET, AGS)	N/A (Flush Mount)
WELL DIAMETER (INCHES)	2
WELL CONSTRUCTION (PVC / STEEL / ETC.)	Stainless Steel

LOCKED UPON ARRIVAL?	(YES)	~~NO~~	MDS 11/3/15
LOCK REPLACED?	YES	(NO)	
OBSTRUCTIONS?	YES	(NO)	
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO)	(If YES, detail in comments below)
WELL RELABELED?	YES	(NO)	
WELL PHOTOGRAPHED?	(YES)	NO	

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SW-1	Location: AFP59
Sampler(s): MIKE JACKSON	Project Name: AFP59 2015 GWS
Well Depth: 28.35+0.28=28.63	Project #: GS2049.04 | Date: 11-3-15 Time: 1634
DTW (ft): 17.85 DTP Top (ft):	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface: 2.40	Sampling Method : BP
Condition of Bottom of Well: Firm	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (15.74 - 25.74)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2	Clear, slight wind, 58°
Placement of Pump Inlet (ft): 23.5	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/-0.1	Temp. (C) +/-0.5	Cond. (~~umhos/cm~~) mS/cm +/-3%	ORP (mv) +/-10	DO (mg/L)	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
1704	17.85	0.200	0.200	7.04	14.98	1.923	102.9	1.78	12.0	
1709	17.85	0.200	1.200	6.78	14.35	1.961	108.7	1.19	7.26	
1714	17.85	0.200	2.200	6.71	14.09	1.974	106.9	1.02	4.41	
1719	17.85	0.200	3.200	6.70	13.98	1.978	105.0	1.05	3.54	
1724	17.85	0.200	4.200	6.69	13.88	1.986	102.9	0.88	2.36	
1729	17.85	0.200	5.200	6.68	13.80	1.981	101.5	0.85	1.86	
1734	17.85	0.200	6.200	6.68	13.74	1.981	100.0	0.82	1.45	
1736	Collect Samples (VOCs & 1,4-DIOXANE).									

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: Pump# 29999 (QED 1.75-inch Sample Pro), DTW post pump/Install = 17.85, YSI 556 MPS (#05161237) Hach 2100Q (#24785 Pine) QED MP10 (Pine #05046), Solinst model 101 (100) (#59244), QED 3020 compressor (Pine #4088)

Signed/Sampler(s): MJJ

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59SW1WG1 DATE: 11-3-15 TIME: 1736

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB110215

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 0.0	COLOR: clear	
2nd	ODOR: None	
	OTHER:	

pH 6.68 Temperature 13.74 (C) Dissolved Oxygen 0.80 (mg/L) Specific Conductivity 1.981 (~~mhos/cm~~) mS/cm

Iron — (mg/L) Oxidation/Reduction Potential 100.0 (mv) Turbidity 1.48 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION slight wind AMBIENT TEMPERATURE 58°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE JACKSON OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZRDOUS SOLID WASTE
SE=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER
BP=BLADDER PUMP
PP=PERISTALIC PUMP
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER:	SW-1	PROJECT NAME:	AFP59
DATE/TIME:	11-3-15	CITY/STATE:	Johnson City, NY
INSPECTED BY:	MDS	Water Level Indicator Serial No.:	Solinst Model 101 (100') (#59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): ∅.∅ ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC)	28.35 + 0.28 = 28.63
WATER LEVEL DEPTH (FEET FROM TOP OF PVC)	17.85
PVC WELL STICK-UP (FEET, ABOVE GRADE)	2.40
PROTECTIVE CASING STICK-UP (FEET, AGS)	2.25 Above Concrete Pad (2.80 Above Ground Surface)
WELL DIAMETER (INCHES)	2
WELL CONSTRUCTION (PVC, STEEL, ETC.)	PVC

LOCKED UPON ARRIVAL?	(YES)	NO	Outer (C) cut lock (prior to MGI) Lock on expandable cap Good
LOCK REPLACED?	YES	(NO)	
OBSTRUCTIONS?	YES	(NO)	
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO)	(If YES, detail in comments below)
WELL RELABELED?	YES	(NO)	
WELL PHOTOGRAPHED?	(YES)	NO	

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: DW-1	Location: AFP59
Sampler(s): MIKE Jackson	Project Name: AFP59 2015 GWS
Well Depth: 62.43 + 0.28 = 62.71	Project #: GS2049.04 Date: 11-4-15 Time: 0845
DTW (ft): 17.86 DTP Top (ft):	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface: 2.65	Sampling Method : BP
Condition of Bottom of Well: Firm	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (52 - 62)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Sunny/clear, calm, 47°
Well Diameter (in): 4	
Placement of Pump Inlet (ft): 54	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/-0.1	Temp. (C) +/-0.5	Cond. ~~(umhos/cm)~~ mS/cm +/-10 (3970)	ORP (mv) +/-10	DO (mg/L)	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
0843	17.86	0.200	0.500	7.12	12.76	1.165	193.5	6.25	3.82	
0848	17.86	0.200	1.500	6.98	12.72	1.559	189.0	4.45	3.84	
0853	17.86	0.200	2.500	6.90	12.71	1.787	183.7	3.55	2.90	
0858	17.86	0.200	3.500	6.86	12.79	1.847	181.6	3.05	2.67	
0903	17.86	0.200	4.500	6.86	12.74	1.881	175.1	2.90	1.96	
0908	17.86	0.200	5.500	6.82	12.77	1.892	175.2	2.84	1.81	
0913	17.86	0.200	6.500	6.82	12.80	1.906	170.8	2.77	1.69	
0915	Collect	Samples	(VOCs	&	1,4-Dioxane).					

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Notes: Pump #12026 (QED Sample Pro 1.75-inch), Post Pump Tag Level = 17.86, YSI 556 MPS (# 09S101237), Hach 2100 Q (#247885, Fine), QED MP10 (Pine # 030146), Solinst Model 101 (# 59244) (100'), QED 3020 Compressor (Pine # 4088).

Signed/Sampler(s): MJD

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59DW1WG1 DATE: 11-4-15 TIME: 0915

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB110215

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 0.0	COLOR: Clear	
2nd	ODOR: None	
	OTHER:	

pH 6.82 Temperature 12.80 (C) Dissolved Oxygen 2.77 (mg/L) Specific Conductivity 1,986 ~~(umhos/cm)~~ mS/cm

Iron — (mg/L) Oxidation/Reduction Potential 170.0 (mv) Turbidity 1.69 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION CALM AMBIENT TEMPERATURE 47°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE JACKSON OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS	SL=SLUDGE
WG=GROUND WATER	SO=SOIL
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER
SE=SEDIMENT	SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER	G=GRAB
BP=BLADDER PUMP	HA=HAND AUGER
PP=PERISTALIC PUMP	H=HOLLOW STEM AUGER
CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: DW-1

PROJECT NAME: AFP59

DATE/TIME: 11-4-15

CITY/STATE: Johnson City, NY

INSPECTED BY: MDS

Water Level Indicator Serial No.: Solonst Model 101 (100') (#59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC)	62.43 + 0.28 = 62.71
WATER LEVEL DEPTH (FEET FROM TOP OF PVC)	17.86
PVC WELL STICK-UP (FEET, ABOVE GRADE)	2.65
PROTECTIVE CASING STICK-UP (FEET, AGS)	2.85
WELL DIAMETER (INCHES)	4
WELL CONSTRUCTION (PVC, STEEL, ETC.)	~~4~~ MDS 11-4-15 PVC

expanding cap

LOCKED UPON ARRIVAL?	(YES)	NO	
LOCK REPLACED?	YES	(NO)	
OBSTRUCTIONS?	YES	(NO)	
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO)	(If YES, detail in comments below)
WELL RELABELED?	YES	(NO)	
WELL PHOTOGRAPHED?	(YES)	NO	

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SW-3	Location: AFP59
Sampler(s): MIKE JACKSON	Project Name: AFP59 2015 GWS
Well Depth: 29.64 + .28 = 29.92	Project #: GS2049.04 Date: 11-4-15 Time: 1000
DTW (ft): 18.79 DTP Top (ft): 29.72	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface: 0.65	Sampling Method : BP
Condition of Bottom of Well: FIRM	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (17.68 - 28.68)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): sunny/clear, calm, 59°
Well Diameter (in): ~~8~~ 2	
Placement of Pump Inlet (ft): 24.5	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/-0.1	Temp. (C) +/-0.5	Cond. ~~(umhos/cm)~~ mS/cm +/-3%	ORP (mv) +/-10	DO (mg/L) 3.52	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
1038	18.79	0.200	0.200	7.88	15.96	1.394	134.8	~~3.52~~	~~3.52~~	2.68
1043	18.79	0.200	1.200	6.91	15.83	1.416	134.4	~~2.68~~ 2.75	0.50	DO=2.75
1048	18.79	0.200	2.200	6.85	15.83	1.420	133.5	2.78	0.43	
1053	18.79	0.200	3.200	6.82	15.85	1.424	131.4	2.64	0.19	
1058	18.79	0.200	4.200	6.81	15.87	1.427	129.6	2.82	0.11	
1103	18.79	0.200	5.200	6.79	15.89	1.424	128.9	2.67	0.11	
1108	18.79	0.200	6.200	6.78	15.92	1.431	128.3	2.66	0.17	
1110	COLLECT			SAMPLES		(VOCs + 1,4-DIOXANE).				

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: Pump # 29999 (QED 1.75-inch Sample Pro), Post-purge Initial DTW = 18.80, YSI 556 MPS (#08S101237), Hach 2100Q (#24785), QED MP10 (Pine #030146), Solinst model 101 (100) (#59244), QED 3020 compressor (Pinoff 4088),

Signed/Sampler(s): [signature]

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59SW3WG1 DATE: 11-4-15 TIME: 1110

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB11021 5

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 0.0	COLOR: CLEAR	
2nd	ODOR: NONE	
	OTHER:	

pH 6.78 Temperature 15.92 (C) Dissolved Oxygen 2.66 (mg/L) Specific Conductivity 1.431 ~~(umhos/cm)~~ mS/cm

Iron — (mg/L) Oxidation/Reduction Potential 128.3 (mv) Turbidity 0.17 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION CALM AMBIENT TEMPERATURE 59°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE JACKSON OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZRDOUS SOLID WASTE
SE=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER
BP=BLADDER PUMP
PP=PERISTALIC PUMP
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: SW-3

PROJECT NAME: AFP59

DATE/TIME: 11-4-15

CITY/STATE: Johnson City, NY

INSPECTED BY: MDS

Water Level Indicator Serial No.: Solinst model 101 (100') (# 59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 29.64 + 0.28 = 29.92

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) 18.79

PVC WELL STICK-UP (FEET, ABOVE GRADE) 0.65

PROTECTIVE CASING STICK-UP (FEET, AGS) 1.13 CONCRETE (0.93 ft AGS)

WELL DIAMETER (INCHES) 2

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

Expanded cap lock

LOCKED UPON ARRIVAL?	(YES)	NO	
LOCK REPLACED?	YES	(NO)	
OBSTRUCTIONS?	YES	(NO)	
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO)	(If YES, detail in comments below)
WELL RELABELED?	YES	(NO)	
WELL PHOTOGRAPHED?	(YES)	NO	

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

DUP02
GW (1,4-DIOXANE ONLY)

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: DW-3	Location: AFP59
Sampler(s): MIKE JACKSON	Project Name: AFP59 2015 GWS
Well Depth: 85.01 + 0.28 = 85.29	Project #: GS2049.04 Date: 11-4-15 Time: 1230
DTW (ft): 16.02 DTP Top (ft):	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface: -0.40	Sampling Method : BP
Condition of Bottom of Well:	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (67.58 - 87.58)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): SUNNY / clear, SLIGHT WIND, 73°
Well Diameter (in): ~~6~~ 4	
Placement of Pump Inlet (ft): ~~79~~	

Field Parameters

Time MDT	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/-0.1	Temp. (C) +/-0.5	Cond. (~~umhos/cm~~) +/- 3% mS/cm	ORP (mv) +/-10	DO (mg/L)	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
1314 ~~1~~	16.02	0.200	0.200	7.93	14.88	1.216	28.1	2.81	16.X	
1319	16.02	0.200	1.200	6.98	14.56	1.474	14.8	1.22	16.5	
1324	16.02	0.200	2.200	6.89	14.55	1.496	5.6	0.82	16.6	
1329	16.02	0.200	3.200	6.86	14.47	1.512	-4.5	0.70	14.9	
1334	16.02	0.200	4.200	6.83	14.28	1.515	-10.6	0.73	13.8	
1339	16.02	0.200	5.200	6.83	14.31	1.515	-13.2	0.65	10.3	
1344	16.02	0.200	6.200	6.83	14.37	1.514	-18.7	0.58	7.78	
1346	Collect	Samples		(VOCs &	1,4-Dioxane)					
				+	DUP 02		(1,4-DIOXANE ONLY) (DUP TIME = 1204)			

Observations

Color: (Clear) Other (describe): DUP2 TIME = 1204

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: PUMP # 29999 (QED SAMPLEPRO 1.75-inch PUMP), POST PUMP INSTALL DTW = 16.02, QED 3020 COMPRESSOR (LINE # 40488), YSI 556 MPS (# 08510237), HACH 2100Q (# 24785), QED MP10 (LINE # 03146), SOLINST MODEL 101 (100') (# 59244),

Signed/Sampler(s): MJ

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59DW3WG1 DATE: 11-4-15 TIME: 1346

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB ☒ COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): 59DUP02WG1 (1,4-DIOXANE ONLY)

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB11Ø4/5

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st Ø.Ø	COLOR: clear	
2nd	ODOR: none	
	OTHER:	

pH 6.83 Temperature 14.37 (C) Dissolved Oxygen 0.58 (mg/L) Specific Conductivity 1.514 (~~umhos/cm~~) mS/cm

Iron — (mg/L) Oxidation/Reduction Potential -18.7 (mv) Turbidity 7.78 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION Wind slight AMBIENT TEMPERATURE 73°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE Jackson OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS	SL=SLUDGE
WG=GROUND WATER	SO=SOIL
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER
SE=SEDIMENT	SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER	G=GRAB
BP=BLADDER PUMP	HA=HAND AUGER
PP=PERISTALIC PUMP	H=HOLLOW STEM AUGER
CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: DW-3

PROJECT NAME: AFP59

DATE/TIME: 11-4-15

CITY/STATE: Johnson City, NY

INSPECTED BY: MDT

Water Level Indicator Serial No.: Solinst Model 101 (100') (# 59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 85.01 + 0.28 = 85.29

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) 16.02

PVC WELL STICK-UP (FEET, ~~ABOVE~~ Below GRADE) -0.40 (FLUSH MOUNT)

PROTECTIVE CASING STICK-UP (FEET, AGS) N/A (FLUSH MOUNT)

WELL DIAMETER (INCHES) 4

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO)	
LOCK REPLACED?	YES	(NO)	
OBSTRUCTIONS?	YES	(NO)	
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO)	(If YES, detail in comments below)
WELL RELABELED?	YES	(NO)	
WELL PHOTOGRAPHED?	(YES)	NO	

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SW-7	Location: AFP59
Sampler(s): MIKE JACKSON	Project Name: AFP59 2015 GWS
Well Depth: 28.71 +0.28 = 28.99 (28.99 ft)	Project #: GS2049.04 Date: 11-4-15 Time: 1500
DTW (ft): 19.35 DTP Top (ft): 19.15	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface: 2.85	Sampling Method : BP
Condition of Bottom of Well: FIRM	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (- 28.85)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): clear/sunny, slight wind, 70°
Well Diameter (in): 2	
Placement of Pump Inlet (ft): 24.5	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/-0.1	Temp. (C) +/-0.5	Cond. (umhos/cm) mS/cm +/-3%	ORP (mv) +/-10	DO (mg/L)	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
1530	19.35	0.200	0.500	7.21	14.93	1.420	81.5	1.34	24.7	
1535	19.35	0.200	1.500	7.05	14.47	1.415	78.3	0.77	16.3	
1540	19.35	0.200	2.500	6.98	14.34	1.414	73.5	0.56	14.5	
1545	19.35	0.200	3.500	6.95	14.26	1.409	67.8	0.54	12.3	
1550	19.35	0.200	4.500	6.92	14.09	1.408	63.9	0.53	10.5	
1555	19.35	0.200	5.500	6.91	14.07	1.405	61.2	0.47	9.45	
1600	19.35	0.200	6.500	6.90	14.09	1.403	59.7	0.41	7.88	
1602	collect		Samples	(VOCs	&	1,4-DIOXANE)				

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Notes: Pump # 12026 (QED Sample Pro 1.75-inch)
Post Pump Install DTW = 19.35 ft, PSI 556 MPS (#08510237), Amch 2100Q (#24785), Solinst model 101 (100') (#59244), QED MP10 (Pine #030146), QED 3020 compressor (Pine #40088),

Signed/Sampler(s): MJS

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59SW7WG1 DATE: 11-4-15 TIME: 1602

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB11Φ415

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st Φ.Φ	COLOR: Clear	
2nd	ODOR: NONE	
	OTHER:	

pH 6.9Φ Temperature 14.Φ9 (C) Dissolved Oxygen 0.41 (mg/L) Specific Conductivity 1.4Φ3 ~~(umhos/cm)~~ mS/cm

Iron — (mg/L) Oxidation/Reduction Potential 59.7 (mv) Turbidity 7.88 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION Slight Wind AMBIENT TEMPERATURE 76°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE Jackson OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS	SL=SLUDGE
WG=GROUND WATER	SO=SOIL
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER
SE=SEDIMENT	SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER	G=GRAB
BP=BLADDER PUMP	HA=HAND AUGER
PP=PERISTALIC PUMP	H=HOLLOW STEM AUGER
CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: SW-7

PROJECT NAME: AFP59

DATE/TIME: 11-4-15

CITY/STATE: Johnson City, NY

INSPECTED BY: MDS

Water Level Indicator Serial No.: Solonst Model 101 (100') (#59277)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 27.71 +0.28 = 27.99

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) 19.35

PVC WELL STICK-UP (FEET, ABOVE GRADE) 3.15-0.3= 2.85 GRADE

PROTECTIVE CASING STICK-UP (FEET, AGS) 2.95 from concrete pad (3.15 GRADE)

WELL DIAMETER (INCHES) 2

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

← Lock w/ expandable cap

LOCKED UPON ARRIVAL?	(YES)	NO
LOCK REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO) (If YES, detail in comments below)
WELL RELABELED?	YES	(NO)
WELL PHOTOGRAPHED?	(YES)	NO

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: JC-2	Location: AFP59
Sampler(s): MIKE JACKSON	Project Name: AFP59 2015 GWS
Well Depth: —	Project #: GS2049.04 Date: 11-5-15 Time: 0830
DTW (ft): — DTP Top (ft): —	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface: -	Sampling Method : Grab (sample valve)
Condition of Bottom of Well:	Type of Pump: N/A
Screen Interval FTOC(ft): -	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): -	OVERCAST, CALM, 55°
Placement of Pump Inlet (ft):	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH	Temp. (C)	Cond. ~~(umhos/cm)~~ mS/cm	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0840	PURGE	JC2	for 5 MINUTES.					OPEN GARDEN		HOSE
	TYPE of CONNECTION in PUMP HOUSE (PRE-TREATMENT).									
0845	COLLECT	SAMPLES	FOR	VOCS	8260B	(TEST AMERICA)				
	AND	1,4-DIOXANE	(1,4-DIOXANE	BY	USEPA	METHOD)	522			
	TO	GEL	(LABORATORY).							
0846	READINGS	—	6.17	13.32	1.054	163.4	3.06	0.08		

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: JC2 LOCATED IN BRICK BLDG SOUTH OF JOHNSON CITY WATER DEPARTMENT BREAK ROOM (MAKE A RIGHT WHEN LEAVING BREAK ROOM FRONT ROOM) (BRICK BLDG CLOSEST TO RIVER.

Signed/Sampler(s): MDJ

FIELD SAMPLING REPORT

LOCATION:	AFP59	PROJECT NAME:	AFP59 2015 GWS
SITE:	AFP59	PROJECT NO:	GS2049.04

SAMPLE INFORMATION

SAMPLE ID: 59JC2WG1

DATE: 11-5-15 TIME: 0845

MATRIX TYPE: WG

SAMPLING METHOD: G

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB11Ø415

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st —	COLOR: clear	
2nd —	ODOR: none	
	OTHER:	

pH 6.17 Temperature 13.32 (C) Dissolved Oxygen 3.Ø6 (mg/L) Specific Conductivity 1.Ø59 (~~umhos/cm~~) mS/cm

Iron — (mg/L) Oxidation/Reduction Potential ~~3.Ø6~~ 163.4 (mv) Turbidity Ø.Ø8 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION Calm AMBIENT TEMPERATURE 55°

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: MIKE Jackson OBSERVER: —

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	PP=PERISTALIC PUMP	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAB/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

DUP01 (VOCs & 1,4-DIOXANE)

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SW-4	Location: AFP59
Sampler(s): MIKE JACKSON	Project Name: AFP59 2015 GWS
Well Depth: 27.90 + 0.28 = 28.18	Project #: GS2049.04 Date: 11-5-15 Time: 1015
DTW (ft): 13.41 DTP Top (ft): 22.91	Courier: ___FedEx ___UPS ___Hand _X_TAL Pickup
MP Ht. Above/Below Ground Surface: -0.18	Sampling Method : BP
Condition of Bottom of Well: FILM	Type of Pump: Bladder Pump
Screen Interval FTOC(ft): (- 27.52)	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): OVERCAST, 65°, CALM, HUMID
Well Diameter (in): ~~8~~ 2	
Placement of Pump Inlet (ft): 23.11	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH +/- 0.1	Temp. (C) +/- 0.5	Cond. (umhos/cm) mS/cm +/-3%	ORP (mv) +/-10	DO (mg/L)	Turb. (NTU) +/-10	Type, Size, and Amount of Sediment Discharged
1045	13.44	0.200	0.20ϕ	6.67	13.26	1.294	131.6	3.34	18.8ϕ	
1050	13.44	0.200	1.20ϕ	6.56	13.17	1.302	128.ϕ	2.24	12.5ϕ	
1055	13.44	0.200	2.20ϕ	6.57	13.18	1.303	124.6	2.28	10.0	
1100	13.44	0.200	3.20ϕ	6.60	13.20	1.302	121.3	2.36	8.15	
1105	13.44	0.200	4.20ϕ	6.63	13.23	1.299	117.2	2.46	5.47	
1110	13.44	0.200	5.20ϕ	6.65	13.27	1.295	114.7	2.55	3.24	
1115	13.44	0.200	6.20ϕ	6.66	13.29	1.302	112.3	2.60	2.87	
1117	COLLECT SAMPLES (VOCS & 1,4-DIOXANE) AND DUPLICATE (S9DUP01WG1 TIME = 1203)									

Observations

S9AB1105I5 ~~S9AB1105I5~~

Color: Clear Other (describe): 1106 COLLECT AMBIENT BLANK (VOCS ONLY)

Odor: None Low Medium High Very Strong H2S Fuel-like ← SLIGHT ODOR, SOME GREASYNESS ON TUBING

Notes: PUMP # 29999 (QED 1.75-inch Sample Pro)

POST-PUMP INSTALL DTW = 13.42', YSI 556 MPS (#08510237)

HACH 2100Q (#24785), SOLINST MODEL 100 (100') (#59244),

QED MP10 (PINE #030146), QED 3020 COMPRESSOR (PINE #4088)

FUEL SMART MAXIMUM BATTERY

Signed/Sampler(s):

EQUIPMENT BLANK = 1220

S9EB1105WG1

FIELD SAMPLING REPORT

LOCATION: AFP59 PROJECT NAME: AFP59 2015 GWS

SITE: AFP59 PROJECT NO: GS2049.04

SAMPLE INFORMATION

SAMPLE ID 59SW4WG1 DATE: 11-5-15 TIME: 1117

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: ___ ___ ___ ___

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

SAMPLE BEG. DEPTH (FT): —

SAMPLE END DEPTH (FT): —

GRAB X COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): 59DUP01WG1 (DUP Time: 1203)

AMBIENT BLANK (AB): 59AB1104515 (AB Time: 1106)

EQUIPMENT BLANK (EB): 59EB1104515 (EB Time: 1220)

TRIP BLANK (TB): TB1104115

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C HCl ph<2	SW8260B	VOCs
1L Amber	2	Cool to 4C	8270C	1,4 Dioxane

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 0.0	COLOR: clear	
2nd	ODOR: slight FUEL-LIKE ODOR	
	OTHER:	

pH 6.66 Temperature 13.29 (C) Dissolved Oxygen 2.60 (mg/L) Specific Conductivity 1.302 ~~(umhos/cm)~~ mS/cm

Iron — (mg/L) Oxidation/Reduction Potential 112.3 (mv) Turbidity 2.87 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION calm AMBIENT TEMPERATURE 65° F Humid

SHIPMENT VIA: FEDEX _____ HAND DELIVER _____ COURIER (TAL) x OTHER _____

SHIPPED TO: Test America Laboratory Denver, CO

COMMENTS:

SAMPLER: Mike Jackson OBSERVER: —

MATRIX TYPE CODES

DC=DRILL CUTTINGS	SL=SLUDGE
WG=GROUND WATER	SO=SOIL
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER
SE=SEDIMENT	SW=SWAB/WIPE

SAMPLING METHOD CODES

B=BAILER	G=GRAB
BP=BLADDER PUMP	HA=HAND AUGER
PP=PERISTALIC PUMP	H=HOLLOW STEM AUGER
CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: SW-4

PROJECT NAME: AFP59

DATE/TIME: 11-5-15

CITY/STATE: Johnson City, NY

INSPECTED BY: MDS

Water Level Indicator Serial No. Solinst model 101 (100') (#59244)

VENT WELL

MONITORING WELL INSTRUMENT READING (VOCs): 0.0 ppm

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 27.90 + 0.28 = 28.18

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) 13.41

PVC WELL STICK-UP (FEET, ~~ABOVE~~ below GRADE) -0.18 (FLUSH MOUNT)

PROTECTIVE CASING STICK-UP (FEET, AGS) N/A (FLUSH MOUNT)

WELL DIAMETER (INCHES) 2

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO)	BOLTED SHUT (3/4" BOLTS)
LOCK REPLACED?	YES	(NO)	
OBSTRUCTIONS?	YES	(NO)	
DAMAGE TO WELL PAD/STICKUP/CASING, ETC?	YES	(NO)	(If YES, detail in comments below)
WELL RELABELED?	YES	(NO)	
WELL PHOTOGRAPHED?	(YES)	NO	

GENERAL CONDITION/COMMENTS/RECOMMENDATIONS:

HydroGeoLogic, Inc

STATIC GROUNDWATER ELEVATION LOG

Project Name: AFP59 2015 Groundwater Sampling Event

Project No.: GS2049.04

Water Level Indicator ID#: Solinst model 101 Water Level Indicator (5924T) **PID Meter ID#:** MiniRAE 2000

Well Identification	Date	Time	Static Depth to Water (from TOC)	Depth to Product (from TOC)	PID Reading	Comments
DW-1	11-2-15	1236	17.86		0.0	4" Temp. Fence between DW-1 & SW-1
SW-1		1220	17.87		0.0	
SW-4		1304	13.45		0.0	
SW-7		1251	19.41	—	0.0	
SW-3		1243	18.82	—	0.0	
DW-3		1245	16.03	—	0.0	4"
URS-2D		1209	~~31.45~~ 31.45	—	0.0	2" SS, Chrysler key BOLT ~~31.46~~ 31.45
URS-2S	↓	1214	31.69	—	0.0	2" SS, Normal LID
URS-3D	11-2-15	1151	36.13	—	0.0	
URS-5S	11-2-15	1203	22.98	—	0.0	
BM-121	↓	1159	26.47	—	0.0	

HGL HydroGeoLogic, Inc Exceeding Expectations

AFP59 2015 LTM Event
Daily Instrument and Calibration Log

Circle One: Spring/Fall

Date: Aqua Phoenix Scientific → 1,413 ms/cm Hanna

	Standard Value	pH4	pH7	pH10	SC ~~1000~~	ORP 100 mv	100% Sat.
	Standard Lot Number	3AL686 12/31/15	4AC516 3/2016	4AD999 4/2016	4AL221 12/2015	8039 9/2019	
	Instrument Serial # 08J101237	pH4 3.85	pH7	pH10	SC 1000 ms/cm	ORP	D.O.
11-2-15	Pre Calibration	~~4.38~~	6.91	10.11	1.506	210.1	82.7% 7.80 mg/L
	Calibrated	4.00	7.00	10.03	1.413	240.0	100.6% 9.49 mg/L
	End of Day Drift	4.09	7.09	10.28	1.409	249.9	93.6% 8.97 mg/L
	Instrument Serial # 08J101237	pH4	pH7	pH10	SC 1000	ORP	D.O.
11-3-15	Pre Calibration	4.05	7.04	10.15	1,401	243.0	110.8% 10.47 mg/L
	Calibrated	4.00	7.00	10.02	1,413	240.0	100.8% 9.51 mg/L
	End of Day Drift	4.23	6.94	9.96	1.427	235.7	84.7% 7.55 mg/L
	Instrument Serial # 08J101237	pH4	pH7	pH10	SC 1000	ORP	D.O.
11-4-15	Pre Calibration	4.05	6.91	10.20	1.425	235.4	83.0% 7.62 mg/L
	Calibrated	4.00	7.00	10.03	1.413	240.0	101.4% 9.32 mg/L
	End of Day Drift	4.09	6.97	10.30	1.417	239.2	97.8% 8.80 mg/L
	Instrument Serial # 08J101237	pH4	pH7	pH10	SC 1000	ORP	D.O.
11-5-15	Pre Calibration	4.04	6.91	10.15	1.423	235.4	104.7% 9.47 mg/L
	Calibrated	4.00	7.00	10.03	1.413	240.0	101.1% 9.14 mg/L
	End of Day Drift	~~4.03~~ 4.03	6.90 6.90	10.11	1.407	238.0	94.1% 7.86 mg/L
	Instrument Serial #	pH4	pH7 6.90	pH10	SC 1000	ORP	D.O.
	Pre Calibration						
	Calibrated						
	End of Day Drift						

TestAmerica Albany
25 Kraft Avenue

Albany, NY 12205
phone 518.438.8140 fax 518.438.8150

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Peter Dacyk	Site Contact: Mike Jackson	Date:	COC No:
HydroGeoLogic, Inc.	Tel/Fax: 518-265-2204	Lab Contact: Patrick McEntee	Carrier: FedEX	1 of 2 COCs
Northway 10 Executive Park, 313 Ushers Road	Analysis Turnaround Time			Sampler: Mike Jackson
Ballston Lake, NY 12019	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(518) 877-0390 Phone	TAT if different from Below _____			Walk-in Client:
(518) 953-0026 FAX	☑ 2 weeks			Lab Sampling:
Project Name: Air Force Plant 59 October 2015 GWS	☐ 1 week			Job / SDG No.:
Site: AFP59 Johnson City, NY	☐ 2 days			
P O # GS2049.04	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCs 8260B	1,4-Dioxane (8270C)	Sample Specific Notes:
59URS3DWG1			G	GW	5	N		x	x	
59BM121WG1			G	GW	5	N		x	x	
59URS2DWG1			G	GW	5	N		x	x	
59URS2SWG1			G	GW	5	N		x	x	
59URS5SWG1			G	GW	5	N		x	x	
59URS5SWG1-MS			G	GW	5	N	Y	x	x	
59URS5SWG1-MSD			G	GW	5	N	Y	x	x	
59DW1WG1			G	GW	5	N		x	x	
59SW1WG1			G	GW	5	N		x	x	
59DW3WG1	11-4-15	13%	G	GW	5	N		x	x	
59SW3WG1			G	GW	5	N		x	x	
59URS3DWG1			G	GW	5	N		x	x	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by: Michael Jackson	Company: HGL	Date/Time: 11-5-15 1700	Received by: Tim Kneller	Company: TA ALB	Date/Time: 11-5-15 1700
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Albany
25 Kraft Avenue

Albany, NY 12205
phone 518.438.8140 fax 518.438.8150

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Peter Dacyk	Site Contact: Mike Jackson	Date:	COC No:
HydroGeoLogic, Inc.	Tel/Fax: 518-265-2204	Lab Contact: Patrick McEntee	Carrier: FedEX	2 of 2 COCs
Northway 10 Executive Park, 313 Ushers Road	Analysis Turnaround Time			Sampler: Mike Jackson
Ballston Lake, NY 12019	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(518) 877-0390 Phone	TAT if different from Below _____			Walk-in Client:
(518) 953-0026 FAX	☑ 2 weeks			Lab Sampling:
Project Name: Air Force Plant 59 October 2015 GWS	☐ 1 week			
Site: AFP59 Johnson City, NY	☐ 2 days			Job / SDG No.:
P O # GS2049.04	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCs 8260B	1,4-Dioxane (8270C)	Sample Specific Notes:
59SW7WG1	11-4-15	1602	G	GW	5	N		x	x	
59SW4WG1	11-5-15	1117	G	GW	5	N		x	x	
59DUP01WG1	11-5-15	1203	G	GW	5	N		x	x	
59DUP02WG1	11-4-15	1204	G	GW	3 5	N		x	x	1,4-Dioxane only
59AB110515	11-5-15	1166	G	WA	3 5	N		x		
59EB110515	11-5-15	1220	G	WA	5	N	Y	x	x	
TB110415	11-4-15	1345	G	WA	2 3	N	Y	x		VOCs 8260B only
59JC2WG1	11-5-15	0845	G	WA	3	N	Y	x		
			11-5-15							

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Michael D Jackson	HGL	11-5-15 1700		TA Albany	11-6-15 1100
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

22216 x 1 4

FedEx Express Package US Airbill

FedEx Tracking Number 8075 7180 9220

MUR3

Form ID No. 0215

Sender's Copy

1 From *Please print and press hard.*

Date 11-5-2015 Sender's FedEx Account Number 2661-0156-2

Sender's Name MELANIE COLEMAN Phone (518) 877-0390

Company HYRDOGEOLOGIC INC

Address 313 USHERS RD Dept./Floor/Suite/Room

City BALLSTON LAKE State NY ZIP 12019-1548

2 Your Internal Billing Reference First 24 characters will appear on invoice. GS2049.04

3 To

Recipient's Name ATTN: VALERIE DAVIS Phone (843) 556-8171

Company GEL LABORATORIES LLC

Address 2040 SAVAGE ROAD Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address Use this line for the HOLD location address or for continuation of your shipping address.

City CHARLESTON State SC ZIP 29407

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

0118679226

Get transit times. Schedule pickups. Create labels. Go to fedex.com.

4 Express Package Service *To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. *For packages over 150 lbs., use the new FedEx Express Freight US Airbill.*

Next Business Day

- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- [ ] FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options

- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods?

One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

- [ ] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [x] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. 1299-0912-9 Exp. Date

Total Packages 1 Total Weight 48 lbs. Total Declared Value† $ ____ .00

†Our liability is limited to US$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

611

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Page: 1 of 1
Project #: GS2049.04
GEL Quote #:
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: HydroGeologic, Inc. (HGL) Phone #: 518-897-6394
Project/Site Name: AFPS9 Fax #:
Address: JOHNSON CITY, NY
Collected by: MIKE McKEON Send Results To: MIKE McKEON

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	USEPA METHOD 522									<-- Preservative Type (6)
									SS									
59JC2WG1	11-5-15	0845	G	N	GW			2	X									1,4-DIOXANE

TAT Requested: Normal: X Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other _____

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	MICHAEL J McKEON	11-5-15	1120			
2						
3						

Sample Shipping and Delivery Details

GEL PM: VALERIE DAVIS
Method of Shipment: FedEx Date Shipped: 11-5-15
Airbill #: 8075 9150 9227
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite
3.) Field Filtered: For liquid matrices, indicate with a - **Y** - for yes the sample was field filtered or - **N** - for sample was not field filtered.
4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).
6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank
SS: Sodium Sulfite

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: _____ C

Location AFP59 - JOHNSON CITY, NY Date 11-20-14

Project / Client GROUNDWATER SAMPLING / AFCEC

Ø945 SECURITY AT AFP59 OPENS GATE TO ACCESS SW-4.

Ø955 SETUP OVER SW-4

1124 SAMPLE SW-4 59SW4WG1 AND

COLLECT DUPLICATE 59DUPØ1WG1 (DUPL SAMPLE

↑ TIME = Ø938

1105 COLLECTED AMBIENT BLANK AB112014 (VOCS ONLY)

1240 COLLECT EQUIPMENT BLANK EB112014.

CLEAN UP / DRIFT YSI

1345 DEPART AFP59

1415 DROP OFF PINE ENVIRONMENTAL EQUIPMENT AT BEST WESTERN JOHNSON CITY FOR PICKUP

1750 ARRIVE AT TEST AMERICA - ALBANY TO DROPOFF SAMPLES

1845 SAMPLES FOR DEL TO FEDEX (MENANDS)

[signature]

11-20-14

Location AFP59 JOHNSON CITY NY Date 11-2-15

Project / Client GROUNDWATER SAMPLING AFCEC

ARRIVAL: Ø840

PERSONNEL: MIKE JACKSON (HGL)

WEATHER: 55°, CLEAR, CALM.

PURPOSE: GROUNDWATER SAMPLING

- PICKED UP ICE, CALIBRATED EQUIPMENT.

- MEET TED CONNELLY AT JOHNSON CITY WATER DEPT.

- MEET SECURITY AT AFP59 AREA (607-744-9258). (PM DOUG SCHEITHO 908-854-5235).

- OPEN WELLS AND ALLOW TO EQUILIBRATE. GAUGE WELLS FOR WATER LEVELS. DECON PUMPS.

1415 SETUP OVER URS-3D

16Ø9 SAMPLE URS-3D FOR VOCS & SVOCS 59URS3DWG1

1710 SETUP OVER BM-12I

1804 SAMPLE BM-12I FOR VOCS & SVOCS 59BM12IWG1

DECON PUMPS

1925 DEPART SITE

Location AFPS9 JOHNSON CITY NY Date 11-3-15

Project / Client GROUNDWATER SAMPLING

AFCEC

ARRIVAL: 0730

PERSONNEL: MIKE JACKSON (HGC)

WEATHER: CLEAR, SUNNY, 05°

PURPOSE: GROUNDWATER SAMPLING

- CALIBRATE EQUIPMENT, PICK UP SUPPLIES

0815 SETUP OVER URS-20

0909 SAMPLE URS-20

59URS20WG1

0955 SETUP OVER URS-25

1138 SAMPLE URS-25

59URS25WG1

1320 SETUP OVER URS-55

1436 SAMPLE URS-55 +MS/MSD

59URS55WG1

59URS55WG1MS

59URS55WG1MSD

1630 SETUP OVER SW-1

1736 SAMPLE SW-1

59SW1WG1

DECON PUMPS

1905 DEPART AFPS9

11-13-15

Location AFPS9 JOHNSON CITY NY Date 11-4-15

Project / Client GROUNDWATER SAMPLING

AFCEC

ARRIVAL: 0750

PERSONNEL: MIKE JACKSON (HGC)

WEATHER: CLEAR/SUNNY, CALM, 47°

PURPOSE: GROUNDWATER SAMPLING

- GET SUPPLIES, CALIBRATE EQUIPMENT,

0805 SETUP OVER DW-1

0915 SAMPLE DW-1 59DW1WG1

1000 SETUP OVER SW-3

1110 SAMPLE SW-3 59SW3WG1

DECON PUMPS, DW-3

1230 SETUP OVER DW-3

1340 SAMPLES TRANSFERRED TO TEST AMERICA COURIER ON SITE

1346 SAMPLE DW-3 (VOCS, 1,4-DIOXANE)

59DW3WG1

COLLECT DUPLICATE FOR 1,4-DIOXANE

59DUP02WG1, GET ICE.

1500 SETUP OVER SW-7

1602 SAMPLE SW-7 FOR VOCS, 1,4 DIOX.

59SW7WG1

DECON PUMPS, DRIFT EQUIPMENT

1720 DEPART SITE

11-4-15

Location AFP59 Johnson City NY Date 11-5-15

Project / Client Ground Water Sampling AFCEC

Arrival: 0825
Personnel: Mike Jackson (HGL)
Weather: 55°, overcast, calm
Purpose: Ground water sampling
- calibrate equipment. Get supplies.
- Talk to water dept (Johnson City)

0840 Purge JC2 municipal well from garden hose type port (untreated water)

0845 Collect samples for VOCs 8260B (Test America) and 1,4-Dioxane by USEPA method 522 (GEL Laboratories). 59JC2WG1 MJ

1015 Setup over SW-4

1106 Collect ambient blanks (VOCs only) 59AB110515WG1

1117 Collect SW-4 samples for VOCs & 1,4-Dioxane 59SW4WG1 and Duplicate 59DUP01WG1

1220 Collect equipment blank for VOCs & 1,4-Dioxane 59EB110515WG1

Location AFP59 Johnson City NY Date 11-5-15

Project / Client Ground Water Sampling AFCEC

1245 Drift equipment. Package equipment for return.

1345 Depart AFP59. Get supplies

1415 Drop off rental equipment at hotel (Best Western). Pine Environmental will pickup 11-6-15.

1900 Drop off samples at Test America - Albany location. TA-Albany will ship to TAL-Denver, CO.

1830 Drop off sample for GEL Laboratory at FedEx (Priority Overnight).

[signature] 11-5-15

ATTACHMENT 2

LABORATORY REPORT

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS3DWG1**

Lab Sample ID: 280-76497-1
Client Matrix: Water

Date Sampled: 11/02/2015 1609
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2225.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2136			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2136				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	1.0		0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	~~UM~~	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.90	~~J~~ F	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS3DWG1**

Lab Sample ID: 280-76497-1
Client Matrix: Water

Date Sampled: 11/02/2015 1609
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2225.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2136			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2136				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	1.6		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 120
4-Bromofluorobenzene (Surr)	92		75 - 120
Dibromofluoromethane (Surr)	93		85 - 115
Toluene-d8 (Surr)	91		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59BM121WG1**

Lab Sample ID: 280-76497-2
Client Matrix: Water

Date Sampled: 11/02/2015 1804
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2226.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2156			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2156				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	~~U~~ m	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59BM121WG1

Lab Sample ID: 280-76497-2
Client Matrix: Water

Date Sampled: 11/02/2015 1804
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2226.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2156			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2156				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 120
4-Bromofluorobenzene (Surr)	96		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Toluene-d8 (Surr)	89		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS2DWG1**

Lab Sample ID: 280-76497-3
Client Matrix: Water

Date Sampled: 11/03/2015 0909
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2229.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2300			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2300				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.20	~~J~~F	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	~~J~~M	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	60	~~J~~X	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS2DWG1**

Lab Sample ID: 280-76497-3
Client Matrix: Water

Date Sampled: 11/03/2015 0909
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2229.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2300			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2300				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 120
4-Bromofluorobenzene (Surr)	93		75 - 120
Dibromofluoromethane (Surr)	100		85 - 115
Toluene-d8 (Surr)	87		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS2DWG1**

Lab Sample ID: 280-76497-3
Client Matrix: Water

Date Sampled: 11/03/2015 0909
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2230.D
Dilution:	4.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2320	Run Type:	DL	Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2320				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.68	U	0.68	4.0
1,1,1-Trichloroethane	0.64	U	0.64	4.0
1,1,2,2-Tetrachloroethane	0.80	U	0.80	4.0
1,1,2-Trichloroethane	1.3	U	1.3	4.0
1,1-Dichloroethane	0.64	U	0.64	4.0
1,1-Dichloroethene	0.56	U	0.56	4.0
1,1-Dichloropropene	0.60	U	0.60	4.0
1,2,3-Trichlorobenzene	0.72	U	0.72	4.0
1,2,3-Trichloropropane	3.1	U	3.1	12
1,2,4-Trichlorobenzene	1.3	U	1.3	4.0
1,2,4-Trimethylbenzene	0.56	U	0.56	4.0
1,2-Dibromo-3-Chloropropane	3.2	U	3.2	20
1,2-Dichlorobenzene	0.52	U	0.52	4.0
1,2-Dichloroethane	0.52	U	0.52	4.0
1,2-Dichloropropane	0.52	U	0.52	4.0
1,3,5-Trimethylbenzene	0.56	U	0.56	4.0
1,3-Dichlorobenzene	0.64	U	0.64	4.0
1,3-Dichloropropane	0.60	U	0.60	4.0
1,4-Dichlorobenzene	0.64	U	0.64	4.0
1-Chlorohexane	0.68	U	0.68	4.0
2,2-Dichloropropane	0.80	U	0.80	4.0
2-Butanone (MEK)	7.3	U	7.3	24
2-Chlorotoluene	0.68	U	0.68	4.0
4-Chlorotoluene	0.68	U	0.68	4.0
4-Isopropyltoluene	0.68	U	0.68	4.0
4-Methyl-2-pentanone (MIBK)	4.2	U	4.2	20
Acetone	7.6	U	7.6	40
Benzene	0.64	U	0.64	4.0
Bromobenzene	0.68	U	0.68	4.0
Bromoform	0.76	U	0.76	4.0
Bromomethane	0.84	U	0.84	8.0
Carbon tetrachloride	0.76	U	0.76	8.0
Chlorobenzene	0.68	U	0.68	4.0
Chlorobromomethane	0.40	U	0.40	4.0
Chloroform	0.64	U	0.64	4.0
Chloromethane	1.2	U	1.2	8.0
cis-1,2-Dichloroethene	61	D	0.60	4.0
cis-1,3-Dichloropropene	0.64	U	0.64	4.0
Dibromomethane	0.68	U	0.68	4.0
Dichlorobromomethane	0.68	U	0.68	4.0
Dichlorodifluoromethane	1.2	U	1.2	8.0
Ethylbenzene	0.64	U	0.64	4.0
Ethylene Dibromide	0.72	U	0.72	4.0
Hexachlorobutadiene	1.4	U	1.4	4.0
Isopropylbenzene	0.76	U	0.76	4.0
Methyl tert-butyl ether	1.0	U	1.0	20

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS2DWG1**

Lab Sample ID: 280-76497-3
Client Matrix: Water

Date Sampled: 11/03/2015 0909
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2230.D
Dilution:	4.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2320	Run Type:	DL	Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2320				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	1.3	U	1.3	20
m-Xylene & p-Xylene	1.4	U	1.4	8.0
Naphthalene	0.88	U	0.88	4.0
n-Butylbenzene	1.3	U	1.3	4.0
N-Propylbenzene	0.64	U	0.64	4.0
o-Xylene	0.76	U	0.76	4.0
sec-Butylbenzene	0.68	U	0.68	4.0
Styrene	0.68	U	0.68	4.0
tert-Butylbenzene	0.64	U	0.64	4.0
Tetrachloroethene	0.80	U	0.80	4.0
Toluene	0.68	U	0.68	4.0
trans-1,2-Dichloroethene	0.60	U	0.60	4.0
trans-1,3-Dichloropropene	0.76	U	0.76	4.0
Trichloroethene	0.64	U	0.64	4.0
Trichlorofluoromethane	1.2	U	1.2	8.0
Vinyl chloride	0.40	U	0.40	6.0
Dibromochloromethane	0.68	U	0.68	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		70 - 120
4-Bromofluorobenzene (Surr)	96		75 - 120
Dibromofluoromethane (Surr)	104		85 - 115
Toluene-d8 (Surr)	93		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS2SWG1**

Lab Sample ID: 280-76497-4
Client Matrix: Water

Date Sampled: 11/03/2015 1138
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5030B
Dilution: 1.0
Analysis Date: 11/12/2015 2340
Prep Date: 11/12/2015 2340

Analysis Batch: 280-303876
Prep Batch: N/A

Instrument ID: VMS_R1
Lab File ID: R2231.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	2.4		0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	1.3		0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	UM	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	1.8		0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59URS2SWG1

Lab Sample ID: 280-76497-4
Client Matrix: Water

Date Sampled: 11/03/2015 1138
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2231.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2340			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2340				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	2.8		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 120
4-Bromofluorobenzene (Surr)	92		75 - 120
Dibromofluoromethane (Surr)	100		85 - 115
Toluene-d8 (Surr)	86		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS5SWG1**

Lab Sample ID: 280-76497-5
Client Matrix: Water

Date Sampled: 11/03/2015 1436
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2224.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2116			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2116				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.52	JF	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	JM	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS5SWG1**

Lab Sample ID: 280-76497-5
Client Matrix: Water

Date Sampled: 11/03/2015 1436
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2224.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2116			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2116				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.56	JF	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 120
4-Bromofluorobenzene (Surr)	95		75 - 120
Dibromofluoromethane (Surr)	95		85 - 115
Toluene-d8 (Surr)	95		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59DW1WG1**

Lab Sample ID: 280-76497-6
Client Matrix: Water

Date Sampled: 11/04/2015 0915
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2232.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2359			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2359				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	UM	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59DW1WG1**

Lab Sample ID: 280-76497-6
Client Matrix: Water

Date Sampled: 11/04/2015 0915
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2232.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/12/2015 2359			Final Weight/Volume:	20 mL
Prep Date:	11/12/2015 2359				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112		70 - 120
4-Bromofluorobenzene (Surr)	97		75 - 120
Dibromofluoromethane (Surr)	104		85 - 115
Toluene-d8 (Surr)	91		85 - 120

AP 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59SW1WG1**

Lab Sample ID: 280-76497-7
Client Matrix: Water

Date Sampled: 11/03/2015 1736
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2233.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0018			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0018				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	U M	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59SW1WG1

Lab Sample ID: 280-76497-7
Client Matrix: Water

Date Sampled: 11/03/2015 1736
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2233.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0018			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0018				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		70 - 120
4-Bromofluorobenzene (Surr)	95		75 - 120
Dibromofluoromethane (Surr)	103		85 - 115
Toluene-d8 (Surr)	89		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59SW3WG1

Lab Sample ID: 280-76497-8
Client Matrix: Water

Date Sampled: 11/04/2015 1110
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5030B
Dilution: 1.0
Analysis Date: 11/13/2015 0038
Prep Date: 11/13/2015 0038

Analysis Batch: 280-303876
Prep Batch: N/A

Instrument ID: VMS_R1
Lab File ID: R2234.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.24	JF	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	JM	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.27	JF	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59SW3WG1

Lab Sample ID: 280-76497-8
Client Matrix: Water

Date Sampled: 11/04/2015 1110
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2234.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0038			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0038				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.42	JF	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112		70 - 120
4-Bromofluorobenzene (Surr)	96		75 - 120
Dibromofluoromethane (Surr)	105		85 - 115
Toluene-d8 (Surr)	92		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59SW7WG1**

Lab Sample ID: 280-76497-9
Client Matrix: Water

Date Sampled: 11/04/2015 1602
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2235.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0057			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0057				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	1.8		0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	5.1		0.16	1.0
1,1-Dichloroethene	0.52	JF	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	JM	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	40		0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59SW7WG1

Lab Sample ID: 280-76497-9
Client Matrix: Water

Date Sampled: 11/04/2015 1602
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2235.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0057			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0057				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.70	J F	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.16	J F	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	9.5		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	1.2	J F	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		70 - 120
4-Bromofluorobenzene (Surr)	94		75 - 120
Dibromofluoromethane (Surr)	104		85 - 115
Toluene-d8 (Surr)	91		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59SW4WG1**

Lab Sample ID: 280-76497-10
Client Matrix: Water

Date Sampled: 11/05/2015 1117
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5030B
Dilution: 1.0
Analysis Date: 11/13/2015 0116
Prep Date: 11/13/2015 0116

Analysis Batch: 280-303876
Prep Batch: N/A

Instrument ID: VMS_R1
Lab File ID: R2236.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.64	JF	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.58	JF	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	JM	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	2.7		0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59SW4WG1**

Lab Sample ID: 280-76497-10
Client Matrix: Water

Date Sampled: 11/05/2015 1117
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2236.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0116			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0116				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.32	~~J~~F	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	4.9		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112		70 - 120
4-Bromofluorobenzene (Surr)	95		75 - 120
Dibromofluoromethane (Surr)	104		85 - 115
Toluene-d8 (Surr)	90		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59DUP01WG1**

Lab Sample ID: 280-76497-11FD
Client Matrix: Water

Date Sampled: 11/05/2015 1203
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2237.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0136			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0136				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.66	~~JF~~	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.59	~~JF~~	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	~~JM~~	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	2.8		0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59DUP01WG1

Lab Sample ID: 280-76497-11FD
Client Matrix: Water

Date Sampled: 11/05/2015 1203
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2237.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0136			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0136				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.32	~~U~~ JF	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	5.2		0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115		70 - 120
4-Bromofluorobenzene (Surr)	97		75 - 120
Dibromofluoromethane (Surr)	108		85 - 115
Toluene-d8 (Surr)	93		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59AB110515

Lab Sample ID: 280-76497-13FB
Client Matrix: Water

Date Sampled: 11/05/2015 1106
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2238.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0155			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0155				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59AB110515**

Lab Sample ID: 280-76497-13FB
Client Matrix: Water

Date Sampled: 11/05/2015 1106
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2238.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0155			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0155				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113		70 - 120
4-Bromofluorobenzene (Surr)	97		75 - 120
Dibromofluoromethane (Surr)	105		85 - 115
Toluene-d8 (Surr)	92		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59EB110515**

Lab Sample ID: 280-76497-14EB
Client Matrix: Water

Date Sampled: 11/05/2015 1220
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-304402	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z2553.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/17/2015 0816			Final Weight/Volume:	20 mL
Prep Date:	11/17/2015 0816				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AE 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59EB110515

Lab Sample ID: 280-76497-14EB
Client Matrix: Water

Date Sampled: 11/05/2015 1220
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-304402	Instrument ID:	VMS_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z2553.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/17/2015 0816			Final Weight/Volume:	20 mL
Prep Date:	11/17/2015 0816				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84		70 - 120
4-Bromofluorobenzene (Surr)	95		75 - 120
Dibromofluoromethane (Surr)	94		85 - 115
Toluene-d8 (Surr)	96		85 - 120

12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **TB110415**

Lab Sample ID: 280-76497-15TB
Client Matrix: Water

Date Sampled: 11/04/2015 1345
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2240.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0233			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0233				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: TB110415

Lab Sample ID: 280-76497-15TB
Client Matrix: Water

Date Sampled: 11/04/2015 1345
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2240.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0233			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0233				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115		70 - 120
4-Bromofluorobenzene (Surr)	96		75 - 120
Dibromofluoromethane (Surr)	106		85 - 115
Toluene-d8 (Surr)	92		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59JC2WG1**

Lab Sample ID: 280-76497-16
Client Matrix: Water

Date Sampled: 11/05/2015 0845
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2241.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0252			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0252				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.33	JF	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	JM	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.24	JF	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59JC2WG1**

Lab Sample ID: 280-76497-16
Client Matrix: Water

Date Sampled: 11/05/2015 0845
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2241.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0252			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0252				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.39	JF	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	117		70 - 120
4-Bromofluorobenzene (Surr)	102		75 - 120
Dibromofluoromethane (Surr)	109		85 - 115
Toluene-d8 (Surr)	95		85 - 120

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59DW3WG1

Lab Sample ID: 280-76497-17
Client Matrix: Water

Date Sampled: 11/04/2015 1346
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5030B
Dilution: 1.0
Analysis Date: 11/13/2015 0311
Prep Date: 11/13/2015 0311

Analysis Batch: 280-303876
Prep Batch: N/A

Instrument ID: VMS_R1
Lab File ID: R2242.D
Initial Weight/Volume: 20 mL
Final Weight/Volume: 20 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.31	JF	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	JM	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	50		0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59DW3WG1

Lab Sample ID: 280-76497-17
Client Matrix: Water

Date Sampled: 11/04/2015 1346
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2242.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0311			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0311				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115		70 - 120
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane (Surr)	107		85 - 115
Toluene-d8 (Surr)	91		85 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **TB110215**

Lab Sample ID: 280-76497-18TB
Client Matrix: Water

Date Sampled: 11/02/2015 0800
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2243.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0330			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0330				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2,2-Tetrachloroethane	0.20	U	0.20	1.0
1,1,2-Trichloroethane	0.32	U	0.32	1.0
1,1-Dichloroethane	0.16	U	0.16	1.0
1,1-Dichloroethene	0.14	U	0.14	1.0
1,1-Dichloropropene	0.15	U	0.15	1.0
1,2,3-Trichlorobenzene	0.18	U	0.18	1.0
1,2,3-Trichloropropane	0.77	U	0.77	3.0
1,2,4-Trichlorobenzene	0.32	U	0.32	1.0
1,2,4-Trimethylbenzene	0.14	U	0.14	1.0
1,2-Dibromo-3-Chloropropane	0.81	U	0.81	5.0
1,2-Dichlorobenzene	0.13	U	0.13	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
1,3,5-Trimethylbenzene	0.14	U	0.14	1.0
1,3-Dichlorobenzene	0.16	U	0.16	1.0
1,3-Dichloropropane	0.15	U	0.15	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1-Chlorohexane	0.17	U	0.17	1.0
2,2-Dichloropropane	0.20	U	0.20	1.0
2-Butanone (MEK)	1.8	U	1.8	6.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.17	U	0.17	1.0
4-Isopropyltoluene	0.17	U	0.17	1.0
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	5.0
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromobenzene	0.17	U	0.17	1.0
Bromoform	0.19	U	0.19	1.0
Bromomethane	0.21	U	0.21	2.0
Carbon tetrachloride	0.19	U	0.19	2.0
Chlorobenzene	0.17	U	0.17	1.0
Chlorobromomethane	0.10	U	0.10	1.0
Chloroform	0.16	U	0.16	1.0
Chloromethane	0.30	U	0.30	2.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.16	U	0.16	1.0
Dibromomethane	0.17	U	0.17	1.0
Dichlorobromomethane	0.17	U	0.17	1.0
Dichlorodifluoromethane	0.31	U	0.31	2.0
Ethylbenzene	0.16	U	0.16	1.0
Ethylene Dibromide	0.18	U	0.18	1.0
Hexachlorobutadiene	0.36	U	0.36	1.0
Isopropylbenzene	0.19	U	0.19	1.0
Methyl tert-butyl ether	0.25	U	0.25	5.0

AC 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: TB110215

Lab Sample ID: 280-76497-18TB
Client Matrix: Water

Date Sampled: 11/02/2015 0800
Date Received: 11/06/2015 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-303876	Instrument ID:	VMS_R1
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	R2243.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	11/13/2015 0330			Final Weight/Volume:	20 mL
Prep Date:	11/13/2015 0330				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Methylene Chloride	0.32	U	0.32	5.0
m-Xylene & p-Xylene	0.34	U	0.34	2.0
Naphthalene	0.22	U	0.22	1.0
n-Butylbenzene	0.32	U	0.32	1.0
N-Propylbenzene	0.16	U	0.16	1.0
o-Xylene	0.19	U	0.19	1.0
sec-Butylbenzene	0.17	U	0.17	1.0
Styrene	0.17	U	0.17	1.0
tert-Butylbenzene	0.16	U	0.16	1.0
Tetrachloroethene	0.20	U	0.20	1.0
Toluene	0.17	U	0.17	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,3-Dichloropropene	0.19	U	0.19	1.0
Trichloroethene	0.16	U	0.16	1.0
Trichlorofluoromethane	0.29	U	0.29	2.0
Vinyl chloride	0.10	U	0.10	1.5
Dibromochloromethane	0.17	U	0.17	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116		70 - 120
4-Bromofluorobenzene (Surr)	98		75 - 120
Dibromofluoromethane (Surr)	108		85 - 115
Toluene-d8 (Surr)	94		85 - 120

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59URS3DWG1

Lab Sample ID: 280-76497-1
Client Matrix: Water

Date Sampled: 11/02/2015 1609
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9950.D
Dilution:	1.0			Initial Weight/Volume:	1045.6 mL
Analysis Date:	11/11/2015 1630			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	5.8		0.082	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	80		54 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59BM121WG1**

Lab Sample ID: 280-76497-2
Client Matrix: Water

Date Sampled: 11/02/2015 1804
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9951.D
Dilution:	1.0			Initial Weight/Volume:	1041.5 mL
Analysis Date:	11/11/2015 1650			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	0.40	JF	0.083	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	81		54 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS2DWG1**

Lab Sample ID: 280-76497-3
Client Matrix: Water

Date Sampled: 11/03/2015 0909
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9952.D
Dilution:	1.0			Initial Weight/Volume:	1043.1 mL
Analysis Date:	11/11/2015 1710			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	21		0.082	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	81		54 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59URS2SWG1**

Lab Sample ID: 280-76497-4
Client Matrix: Water

Date Sampled: 11/03/2015 1138
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9953.D
Dilution:	1.0			Initial Weight/Volume:	1042.3 mL
Analysis Date:	11/11/2015 1729			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	12		0.083	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	78		54 - 120

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59URS5SWG1

Lab Sample ID: 280-76497-5
Client Matrix: Water

Date Sampled: 11/03/2015 1436
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9954.D
Dilution:	1.0			Initial Weight/Volume:	1045.2 mL
Analysis Date:	11/11/2015 1749			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	0.40	JF	0.082	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	80		54 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59DW1WG1**

Lab Sample ID: 280-76497-6
Client Matrix: Water

Date Sampled: 11/04/2015 0915
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9957.D
Dilution:	1.0			Initial Weight/Volume:	1048.2 mL
Analysis Date:	11/11/2015 1848			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	0.082	U	0.082	0.95

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	77		54 - 120

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59SW1WG1

Lab Sample ID: 280-76497-7
Client Matrix: Water

Date Sampled: 11/03/2015 1736
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9958.D
Dilution:	1.0			Initial Weight/Volume:	1047.1 mL
Analysis Date:	11/11/2015 1907			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	0.082	U	0.082	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	89		54 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59SW3WG1**

Lab Sample ID: 280-76497-8
Client Matrix: Water

Date Sampled: 11/04/2015 1110
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9959.D
Dilution:	1.0			Initial Weight/Volume:	1040.8 mL
Analysis Date:	11/11/2015 1927			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	0.083	U	0.083	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	80		54 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59SW7WG1**

Lab Sample ID: 280-76497-9
Client Matrix: Water

Date Sampled: 11/04/2015 1602
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9960.D
Dilution:	1.0			Initial Weight/Volume:	1040.5 mL
Analysis Date:	11/11/2015 1947			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	6.0		0.083	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	89		54 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: 59SW4WG1

Lab Sample ID: 280-76497-10
Client Matrix: Water

Date Sampled: 11/05/2015 1117
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9961.D
Dilution:	1.0			Initial Weight/Volume:	1039.7 mL
Analysis Date:	11/11/2015 2006			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	1.6		0.083	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	90		54 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59DUP01WG1**

Lab Sample ID: 280-76497-11FD
Client Matrix: Water

Date Sampled: 11/05/2015 1203
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9962.D
Dilution:	1.0			Initial Weight/Volume:	1044 mL
Analysis Date:	11/11/2015 2026			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	1.6		0.082	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	77		54 - 120

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59DUP02WG1**

Lab Sample ID: 280-76497-12FD
Client Matrix: Water

Date Sampled: 11/04/2015 1204
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-305166	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303590	Lab File ID:	G4_0060.D
Dilution:	1.0			Initial Weight/Volume:	1045.4 mL
Analysis Date:	11/21/2015 1006			Final Weight/Volume:	2 mL
Prep Date:	11/11/2015 1435			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	8.1		0.082	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	78		54 - 120

AF 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59EB110515**

Lab Sample ID: 280-76497-14EB
Client Matrix: Water

Date Sampled: 11/05/2015 1220
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9963.D
Dilution:	1.0			Initial Weight/Volume:	1041.3 mL
Analysis Date:	11/11/2015 2046			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	0.083	U	0.083	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	86		54 - 120

AE 12/23/15

Client: HydroGeoLogic Inc

Job Number: 280-76497-1

Client Sample ID: **59DW3WG1**

Lab Sample ID: 280-76497-17
Client Matrix: Water

Date Sampled: 11/04/2015 1346
Date Received: 11/06/2015 0930

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	280-303603	Instrument ID:	SMS_G4
Prep Method:	3520C	Prep Batch:	280-303206	Lab File ID:	G4_9964.D
Dilution:	1.0			Initial Weight/Volume:	1040.7 mL
Analysis Date:	11/11/2015 2106			Final Weight/Volume:	2 mL
Prep Date:	11/09/2015 1500			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,4-Dioxane	6.7		0.083	0.96

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	73		54 - 120

AF 12/23/15

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**384963**	**Date Collected:**	**11/05/2015 08:45**	**Matrix:**	**WATER**
Lab Sample ID:	**384963001**	**Date Received:**	**11/06/2015 09:40**		
		Client:	**HGLG007**	**Project:**	**HGLG00714**
Client ID:	**59JC2WG1**	**Method:**	**EPA 522**	**SOP Ref:**	**GL-OA-E-073**
Batch ID:	**1522680**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**11/22/2015 15:21**	**Analyst:**	**LOF**	**Inj. Vol:**	**1 uL**
Prep Date:	**11/20/2015 11:20**	**Aliquot:**	**100 mL**	**Final Volume:**	**2 mL**
Data File:	**s112215.B\s6k2207.D**		**RTX-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL	LOD	LOQ
123-91-1	1,4-Dioxane	F	0.896	ug/L	0.320	0.320	1.00

KF 12/23/15

ATTACHMENT 3

DATA VALIDATION REPORT

Volatile Organic Compounds
SW-846 Method 8260B
USEPA Level II Review

Site: Air Force Plant 59	SDG #: 280-76497-1
Laboratory: TestAmerica Laboratories	Date: 12/23/2015
HydroGeoLogic, Inc. Reviewer: Andrea Fletcher Peer Reviewer: Joseph Vilain (12/23/15)	Project: GS2049.05.01

Client Sample ID	Laboratory Sample ID	Analysis Batch	Matrix
59URS3DWG1	280-76497-1	280-303876	Groundwater
59BM121WG1	280-76497-2	280-303876	Groundwater
59URS2DWG1	280-76497-3	280-303876	Groundwater
59URS2SWG1	280-76497-4	280-303876	Groundwater
59URS5SWG1	280-76497-5	280-303876	Groundwater
59DW1WG1	280-76497-6	280-303876	Groundwater
59SW1WG1	280-76497-7	280-303876	Groundwater
59SW3WG1	280-76497-8	280-303876	Groundwater
59SW7WG1	280-76497-9	280-303876	Groundwater
59SW4WG1	280-76497-10	280-303876	Groundwater
59DUP01WG1	280-76497-11FD	280-303876	Groundwater
59AB110515	280-76497-13FB	280-303876	Water QC
59EB110515	280-76497-14EB	280-304402	Water QC
TB110415	280-76497-15TB	280-303876	Water QC
59JC2WG1	280-76497-16	280-303876	Groundwater
59DW3WG1	280-76497-17	280-303876	Groundwater
TB110215	280-76497-18TB	280-303876	Water QC

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – The samples were analyzed within the 14-day holding time required by the QAPP for preserved aqueous samples

Qualification: None required.

Surrogates – The laboratory reported different control limits for all VOC surrogates than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

All surrogate recoveries were within the control limits specified in the QAPP.

Qualification: None required.

Laboratory Control Sample – The laboratory reported different recovery and RPD limits for all target analytes than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

One LCS was associated with the samples in this SDG. The LCS met the %R control limits established in the QAPP.

Qualification: None required.

MS/MSD – The laboratory reported different recovery and RPD limits for all target analytes than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

Matrix spike/matrix spike duplicate analyses were performed for all target VOCs on sample 59URS5SWG1 from this SDG. The %R and RPD results were within the QAPP control limits with the exception of the RPD for 4-methyl-2-pentanone (21% RPD, limt RPD<20%). All results are qualified M.

***Qualification:* All 4-methyl-2-pentanone results are qualified M.**

Laboratory Duplicate – Laboratory duplicate analyses were not requested or performed on a sample from this SDG.

Qualification: None required.

Method Blank – One method blank is associated with the samples in this SDG. The method blank analyzed on 11/12/15 was free from contamination.

Qualification: None required.

Field Blanks – One equipment blank, identified as 59EB110515, was associated with all samples in this SDG and was free from contamination. One ambient blank, identified as 59AB110515, was associated with all samples in this SDG and was free from contamination.

Qualification: None required.

Trip Blank – Two trip blanks, identified as TB110215 and TB110415, were associated with all samples in this SDG and were free from contamination.

Qualification: None required.

Field Duplicate – Sample 59DUP01WG1 is a field duplicate of sample 59SW4WG1. All calculated RPDs were within the control limits established in the QAPP for the duplicate pair.

Qualification: None required.

Compound Quantitation – Analyte non-detections were reported as "ND"; these results should be considered the equivalent of "MDL U." Analyte detections below the RL were reported as J-qualified results. These J qualifiers should be changed to F qualifiers per the QAPP instructions, unless superseded by a more severe qualifier. Due to a target analyte concentration, sample 59UR52DWG1was reanalyzed at 4x dilution. The diluted results should be considered the definitive result and the non-diluted results should have an X appended to the laboratory-applied qualifier.

Qualification: All diluted results for sample 59URS2DWG1 except for cis-1,2-dichloroethene, has an X appended to it, cis-1,2-dichloroethene in original analysis has an X appended to it. The diluted cis-1,2-dichloroethene result should be considered the definitive result. All laboratory detections below the RL are qualified F.

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
59URS3DWG1	4-Methyl-2-pentanone	1.0	U	1.0	M
	cis-1,2-Dichloroethene	0.90	J	0.90	F
59BM121WG1	4-Methyl-2-pentanone	1.0	UQ	1.0	U
59URS2DWG1 (Original run)	1,1-Dichloroethane	0.20	J	0.20	F
	4-Methyl-2-pentanone	1.0	U	1.0	M
	cis-1,2-Dichloroethene	60	J	60	JX
59URS2DWG1 (Dilution 4x)	cis-1,2-Dichloroethene	61	D	Report this Value	
	All other results	Varies	U	Varies	UX
59URS2SWG1	4-Methyl-2-pentanone	1.0	U	1.0	M
59URS5SWG1	1,1,1-Trichloroethane	0.52	J	0.52	F
	4-Methyl-2-pentanone	1.0	U	1.0	M
	Trichloethene	0.56	J	0.56	F
59DW1WG1	4-Methyl-2-pentanone	1.0	U	1.0	M
59SW1WG1	4-Methyl-2-pentanone	1.0	U	1.0	M
59SW3WG1	1,1,1-Trichloroethane	0.24	J	0.24	F
	4-Methyl-2-pentanone	1.0	U	1.0	M
	cis-1,2-Dichloroethene	0.27	J	0.27	F
	Trichloethene	0.42	J	0.42	F
59SW7WG1	1,1-Dichloroethene	0.52	J	0.52	F
	4-Methyl-2-pentanone	1.0	U	1.0	M
	Tetrachloroethene	0.70	J	0.70	F
	trans-1,2-Dichloroethene	0.16	J	0.16	F
	Vinyl chloride	1.2	J	1.2	F
59SW4WG1	1,1,1-Trichloroethane	0.64	J	0.64	F

	1,1-Dichloroethane	0.58	J	0.58	F
	4-Methyl-2-pentanone	1.0	U	1.0	M
	Tetrachloroethene	0.32	J	0.32	F
59DUP01WG1	1,1,1-Trichloroethane	0.66	J	0.66	F
	1,1-Dichloroethane	0.59	J	0.59	F
	4-Methyl-2-pentanone	1.0	U	1.0	M
	Tetrachloroethene	0.32	J	0.32	F
59JC2WG1	1,1,1-Trichloroethane	0.33	J	0.33	F
	4-Methyl-2-pentanone	1.0	U	1.0	M
	cis-1,2-Dichloroethene	0.24	J	0.24	F
	Trichloethene	0.39	J	0.39	F
59DW3WG1	1,1-Dichloroethane	0.31	J	0.31	F
	4-Methyl-2-pentanone	1.0	U	1.0	M

1,4-Dioxane
SW-846 Method 8270C-SIM
USEPA Level II Review

Site: Air Force Plant 59	SDG #: 280-76497
Laboratory: Test America Laboratories	Date: 12/23/15
HydroGeoLogic, Inc. Reviewer: Andrea Fletcher Peer Reviewer: Joseph Vilain (12/23/15)	Project: GS2049.05.01

Client Sample ID	Laboratory Sample ID	Analysis/Prep Batch	Matrix
59URS3DWG1	280-76497-1	280-303603/280-303206	Groundwater
59BM121WG1	280-76497-2	280-303603/280-303206	Groundwater
59URS2DWG1	280-76497-3	280-303603/280-303206	Groundwater
59URS2SWG1	280-76497-4	280-303603/280-303206	Groundwater
59URS5SWG1	280-76497-5	280-303603/280-303206	Groundwater
59DW1WG1	280-76497-6	280-303603/280-303206	Groundwater
59SW1WG1	280-76497-7	280-303603/280-303206	Groundwater
59SW3WG1	280-76497-8	280-303603/280-303206	Groundwater
59SW7WG1	280-76497-9	280-303603/280-303206	Groundwater
59SW4WG1	280-76497-10	280-303603/280-303206	Groundwater
59DUP01WG1	280-76497-11FD	280-303603/280-303206	Groundwater
59DUP02WG1	280-76497-12FD	280-305166/280-303590	Groundwater
59EB110515	280-76497-14FB	280-303603/280-303206	Water QC
59DW3WG1	280-76497-17	280-303603/280-303206	Groundwater

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

Sample Delivery and Condition – All samples arrived at the laboratory in acceptable condition and temperature and were properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – All samples were extracted within the 7-day holding time required by the QAPP and analyzed within 40 days of extraction.

Qualification: None required.

Surrogates – All surrogate recoveries were within the control limits specified by the laboratory.

Qualification: None required.

Laboratory Control Sample – The laboratory reported different recovery and RPD limits for 1,4-dioxane than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data. The LCS for batch 280-303206 met the %R control limit established in the QAPP. The LCS/LCSD for batch 280-303590 met the %R and RPD limits.

Qualification: None required.

MS/MSD – The laboratory reported different recovery and RPD limits for 1,4-dioxane than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

Matrix spike/matrix spike duplicate analyses were performed for 1,4-dioxane on sample 59JC2WG1 from this SDG. The %R and RPD results were within the QAPP control limits.

Qualification: None required.

Laboratory Duplicate – Laboratory duplicate analyses were not requested or performed on a sample from this SDG.

Qualification: None required.

Method Blank – Two method blanks were associated with the samples in this SDG. The method blanks analyzed on 11/11/15 and 11/21/15, for batches 280-303206 and 280-303590, respectively, were free from contamination.

Qualification: None required.

Equipment Blank – One equipment blank, identified as 59EB110515, was associated with all samples in this SDG and was free from contamination.

Qualification: None required.

Field Duplicate – Sample 59DUP01WG1 was a field duplicate of sample 59SW4WG1 with a calculated RPD of 0%. Sample 59DUP02WG1 was a field duplicate of sample 59DW3WG1 with a calculated RPD of 18.9%. All RPDs were within the control limits established in the QAPP for duplicate pairs.

Qualification: None required.

Compound Quantitation – Analyte non-detections were reported as "ND"; these results should be considered the equivalent of "MDL U." Analyte detections below the RL were reported as J-qualified results. These J qualifiers should be changed to F qualifiers per the QAPP instructions, unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (results in μg/L):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
59URS3DWG1	1,4-Dioxane	No qualification required.			
59BM121WG1	1,4-Dioxane	0.40	J	0.40	F
59URS2DWG1	1,4-Dioxane	No qualification required.			
59URS2SWG1	1,4-Dioxane	No qualification required.			
59URS5SWG1	1,4-Dioxane	0.40	J	0.40	F
59DW1WG1	1,4-Dioxane	No qualification required.			
59SW1WG1	1,4-Dioxane	No qualification required.			
59SW3WG1	1,4-Dioxane	No qualification required.			
59SW7WG1	1,4-Dioxane	No qualification required.			
59SW4WG1	1,4-Dioxane	No qualification required.			
59DUP01WG1	1,4-Dioxane	No qualification required.			
59DUP02WG1	1,4-Dioxane	No qualification required.			
59DW3WG1	1,4-Dioxane	No qualification required.			

1,4-Dioxane
SW-846 Method 522
USEPA Level II Review

Site: Air Force Plant 59	SDG #: 384963
Laboratory: GEL Laboratories	Date: 12/23/2015
HydroGeoLogic, Inc. Reviewer: Andrea Fletcher Peer Reviewer: Joseph Vilain (12/23/15)	Project: GS2049.05.01

Client Sample ID	Laboratory Sample ID	Analysis/Prep Batch	Matrix
59JC2WG1	384963001	1522680/1522679	Groundwater

Narrative and Completeness Review – The case narrative and data package were checked for completeness. No discrepancies were noted.

Qualification: None required.

Sample Delivery and Condition – The sample arrived at the laboratory in acceptable condition and temperature and was properly preserved. Proper custody was documented.

Qualification: None required.

Holding Times – The sample was extracted within the 28-day holding time required by the method.

Qualification: None required.

Surrogates – All surrogate recoveries were within the control limits specified by the laboratory.

Qualification: None required.

Laboratory Control Sample – The laboratory reported different recovery and RPD limits for 1,4-dioxane than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data. One LCS was associated with the sample in this SDG and met the %R control limit established in the QAPP.

Qualification: None required.

MS/MSD – The laboratory reported different recovery and RPD limits for 1,4-dioxane than were established in the QAPP; those limits listed in the QAPP were used to evaluate the data.

Matrix spike/matrix spike duplicate analyses were performed for 1,4-dioxane on sample 59JC2WG1 from this SDG. The %R and RPD results were within the QAPP control limits.

Qualification: None required.

Laboratory Duplicate – Laboratory duplicate analyses were not requested or performed on a sample from this SDG.

Qualification: None required.

Method Blank – One method blank was associated with the sample in this SDG. The method blank analyzed on 11/20/2015 was free from contamination.

Qualification: None required.

Equipment Blank – An equipment blank was not submitted with this sample.

Qualification: None required.

Field Duplicate – A field duplicate was not submitted with this sample.

Qualification: None required.

Compound Quantitation – Analyte non-detections were reported as "ND"; these results should be considered the equivalent of "MDL U." Analyte detections below the RL were reported as J-qualified results. These J qualifiers should be changed to F qualifiers per the QAPP instructions, unless superseded by a more severe qualifier.

Qualification: The J flag applied by the laboratory was changed to F.

Qualification Summary Table (results in μg/L):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier
59JC2WG1	1,4-Dioxane	0.896	J	0.896	F

ATTACHMENT 4

DATA QUALIFIERS

Attachment 4
Data Qualifiers

Qualifier	Description
J	The analyte was positively identified, the quantitation is an estimation.
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
F	The analyte was positively identified but the associated numerical value is below the RL.
Q	One or more quality control criteria (for example, LCS recovery, surrogate spike recovery) failed. Data must be carefully assessed by the prime contractor (or project team) with respect to the project-specific requirements and evaluated for usability. Subsequent assessment by DOD may result in rejection of data.
B	The analyte was found in an associated blank above ½ the RL, as well as in the sample.
M	A matrix effect was present
S	To be applied to all field screening data.
T	Tentatively identified compound: The analyte is a tentatively identified compound (mass spectrometry methods only).