Intended for
Envirite Corporation
Chappaqua, New York

Date
January 2017

2016 ANNUAL POSTCLOSURE ENVIRONMENTAL MONITORING REPORT

ENVIRTE RCRA FACILITY THOMASTON, CONNECTICUT

RAMBOLL ENVIRON

John M. Noble

Digitally signed by John M. Noble
DN: cn=John M. Noble, o=ENVIRON International Corp., ou, email=jnoble@environcorp.com, c=US
Date: 2017.01.31 12:29:43 -05'00'

2016 ANNUAL POSTCLOSURE ENVIRONMENTAL MONITORING REPORT
ENVIRTE RCRA FACILITY
THOMASTON, CONNECTICUT

Revision	**N/A**
Date	**January 30, 2017**
Made by	**John Noble**
Checked by	**Alan Kao**
Approved by	**Alan Kao**

Ref 08-14218I3

Ramboll Environ
3 Carlisle Road
Suite 210
Westford, MA 01886
USA
T +1 978 449 0300
F +1 978 449 0301
www.ramboll-environ.com

CONTENTS

1.	**INTRODUCTION**	**1**
1.1	Quality Assurance Project Plan/Sampling and Analysis Plan	1
2.	**SEMIANNUAL POSTCLOSURE ENVIRONMENTAL MONITORING PROGRAM**	**2**
2.1	PCEMP Groundwater Monitoring Network	2
2.1.1	**Groundwater Sampling Methodology**	2
2.1.2	**Groundwater Laboratory Analytical Program**	3
2.1.3	**Surface Water Sampling Program**	3
2.1.4	**Surface Water Laboratory Analytical Program**	4
2.2	Sample Design Logistics	4
2.3	Groundwater and Surface Water Gauging Events	4
3.	**DISCUSSION OF RESULTS**	**5**
3.1	Groundwater Elevation Plans and Inferred Groundwater Flow Directions	5
3.1.1	**March 30, 2016 Groundwater Elevations**	5
3.1.2	**October 30, 2016 Groundwater Elevations**	5
3.1.3	**2016 Horizontal Hydraulic Gradient Summary**	6
3.1.4	**2016 Vertical Hydraulic Gradients**	6
3.2	Groundwater Quality Discussion	7
3.2.1	**March 2016 Groundwater Quality Data**	7
3.2.2	**October 2016 Groundwater Quality Data**	8
3.2.3	**2016 Groundwater Criteria Exceedances**	10
3.2.4	**Groundwater Quality Trends**	10
3.3	Surface Water Quality Discussion	12
3.4	October 2016 Data Validation and Usability Discussion	13
4.	**CONCLUSIONS AND RECOMMENDATIONS**	**15**

TABLES EMBEDDED IN TEXT

Table 1. Revised Postclosure Groundwater Monitoring Well Network 3
Table 2. Sample Design Logistics 4
Table 6. Groundwater Criteria Exceedances March and October 2016 10

TABLES POSTED IN TABLES SECTION (END OF REPORT)

Table 3. Groundwater Elevation Data and Vertical Hydraulic Gradients - March and October 2016
Table 4. Groundwater Quality Data – March and October 2016
Table 5. Stabilized Geochemical Field Parameters – March and October 2016
Table 7. Surface Water Quality Data – March and October 2016

FIGURES

Figure 1. Site Location Map
Figure 2. Environmental Monitoring Locations Site Plan
Figure 3-1. Environmental Monitoring Locations Site Plan – March 30, 2016 Overburden Groundwater Elevation Contours
Figure 3-2. Environmental Monitoring Locations Site Plan - March 30, 2016 Bedrock Groundwater Elevation Contours
Figure 3-3. Environmental Monitoring Locations Site Plan – October 3, 2016 Overburden Groundwater Elevation Contours
Figure 3-4. Environmental Monitoring Locations Site Plan – October 3, 2016 Bedrock Groundwater Elevation Contours
Figure 3-5. Vertical Hydraulic Gradients - 2016 Groundwater Elevation Gauging Events
Figure 3-6. March 30, 2016 Shallow Overburden – Bedrock Groundwater Elevation Overlay
Figure 3-7. October 3, 2016Shallow Overburden – Bedrock Groundwater Elevation Overlay
Figure 4-1. Concentration Trend Plot - Copper: MW-31S, MW-43D and MW-51D
Figure 4-2. Concentration Trend Plot - Zinc: MW-31S, MW-43D and MW-51D
Figure 4-3. Concentration Trend Plot - Vinyl Chloride: MW-30, MW-31S, MW-43D, MW-44D, MW-51D, and MW-53D
Figure 4-4. Concentration Trend Plot - PCE: MW-30 and MW-53D
Figure 4-5. Concentration Trend Plot –Chromium
Figure 4-6. Concentration Trend Plot - Nickel

APPENDICES

Appendix A
October 2016 Field notes, Groundwater Elevation Gauging Form, Equipment Calibration Logs, and Low-Flow Groundwater Sampling Field Forms

Appendix B
Spectrum Analytical, Inc. Laboratory Report (SC26674)

Appendix C
Data Validation Review Report – Ocober 2016 Sampling Event

ACRONYMS AND ABBREVIATIONS

cis-1,2-DCE	cis-1,2-dichloroethene
COC	constituent of concern
CTDEEP	Connecticut Department of Energy and Environmental Protection
Denno	Denno Land Surveying
Envirite	Envirite Corporation
ft/ft	feet per foot
HDPE	high-density polyethylene
I-VC	industrial/commercial volatilization criteria
mg/L	milligram(s) per liter
MIBK	4-methyl-2-pentanone
NTU	nephelometric turbidity unit
PCE	tetrachloroethene
PCMP	post-closure monitoring plan
PCEMP	post-closure environmental monitoring plan
QA/QC	quality assurance/quality control
QAPP	quality assurance project plan
RCRA	Resource Conservation and Recovery Act
RDL	reportable detection limit
RSR	Remediation Standard Regulations
R-VC	residential volatilization criteria
SAP	sampling and analysis plan
SWPC	Surface Water Protection Criteria
TCE	trichloroethene
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency
VC	vinyl chloride
VOC	volatile organic compound
WPCF	Water Pollution Control Facility

1. INTRODUCTION

On behalf of Envirite Corporation (Envirite), Ramboll Environ US Corporation (Ramboll Environ) (formerly ENVIRON) has completed two semiannual post-closure environmental monitoring events at the Envirite Resource Conservation and Recovery Act (RCRA) facility (the Site) located on Old Waterbury Road in Thomaston, Connecticut. The scope of work associated with the post-closure environmental monitoring event was detailed in the following document:

- ENVIRON. 2014. Revised Post-Closure Environmental Monitoring Plan, Envirite RCRA Facility, Old Waterbury Road, Thomaston, Connecticut. November 10, 2014.

Performed in March and October 2016, these were the second and third environmental monitoring events conducted in accordance with the revised Post-Closure Environmental Monitoring Plan (PCEMP). Note that the PCEMP schedule indicated sampling in the months of March and September; however, due to unforeseen delays associated with supplemental investigation activities initially proposed to be conducted in conjunction with the fall semi-annual sampling event, the September event was postponed until early October. It is anticipated that the PCEMP schedule will be followed in 2017.

The location of the facility is shown in **Figure 1** (Site Location Map). The Environmental Monitoring Locations Site Plan (**Figure 2**) shows the general layout of the Site and physical features including former developed areas, landfill areas, and the existing environmental monitoring network, including groundwater monitoring wells and surface water sampling locations.

1.1 Quality Assurance Project Plan/Sampling and Analysis Plan

The original Quality Assurance Project Plan/Sampling and Analysis Plan (QAPP/SAP), dated December 3, 2013, documents the quality assurance/quality control (QA/QC) procedures associated with the revised PCEMP activities. Deviations and modifications from the December 3, 2013 QAPP/SAP were detailed in the revised PCEMP and include the following:

- Modifications to the groundwater monitoring well network
- Modifications to the groundwater laboratory analytical program
- Modifications to the surface water sampling locations and laboratory analytical program

The scope of the revised semiannual PCEMP is discussed further below.

2. SEMIANNUAL POSTCLOSURE ENVIRONMENTAL MONITORING PROGRAM

This section documents the scope of the March and October 2016 semiannual PCEMP events, including the groundwater and surface water monitoring networks and the associated laboratory analytical programs for these media. In addition, the scope of the groundwater elevation gauging activities is described herein. The semiannual PCEMP events were conducted on the following dates:

- March 30 - 31, 2016
- October 3 - 4, 2016.

2.1 PCEMP Groundwater Monitoring Network

In conjunction with the March and October 2016 PCEMP sampling events, groundwater samples were collected from the wells detailed in **Table 1** (below).

2.1.1 Groundwater Sampling Methodology

Groundwater sampling activities for the 2016 monitoring events were conducted in accordance with the current USEPA–Region 1 Low-Stress (Low-Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (EQASOP-GW 001), Revision No. 3, dated January 19, 2010. Detailed groundwater sampling procedures are discussed in the QAPP/SAP.

Groundwater samples were collected using QED bladder pumps equipped with disposable bladders and high-density polyethylene (HDPE) sample tubing. Bladders and tubing were replaced between wells, and pumps were decontaminated in accordance with the procedures specified in the QAPP/SAP. Once field parameters were stabilized within acceptable tolerances, groundwater samples were collected directly in laboratory-supplied containers containing the appropriate sample preservative for each analytical method. The samples were maintained on ice until delivery to the analytical laboratory.

During low-flow sampling, if turbidity could not be stabilized below 5 nephelometric turbidity units (NTUs), samples were collected for both total and dissolved metals concentrations to evaluate the potential effect of turbidity on these concentrations. The sample aliquot for dissolved metals analysis was field-filtered through a 0.45 micron groundwater filter prior to preservation in the field.

- A sample aliquot for dissolved metals analysis was collected from MW-31S during the March and October 2016 sampling events.

The groundwater sampling activities for the October 2016 sampling event are documented in the field notes, field equipment calibration logs, and low-flow groundwater sampling field forms (**Appendix A**).

Table 1. Revised Postclosure Groundwater Monitoring Well Network

Well	Screened Interval (feet bgs)	Unit	Rationale
MW-30	38 – 48	OB	Monitor groundwater quality downgradient of northern waste cells and PEWM-L and immediately surrounding former treatment facility
MW-51D[1]	18.3 – 28.3	OB	
MW-31S	17 – 27	OB	Monitor groundwater quality in vicinity and downgradient of PEWM-R
MW-50S[1]	13.7 – 18.7	OB	
MW-53D[1]	25 – 40	OB	
MW-41D	17 – 32	OB	Monitor groundwater quality along downgradient property boundary
MW-41S	10 – 20	OB	
MW-42S	22.5 – 32.5	OB	
MW-43D	58 – 68	OB	
MW-43S	22.5 – 32.5	OB	
MW-44D	62 - 72	OB	

1. Monitoring wells MW-50S, MW-51D, and MW-53D were added to the PCEMP.
bgs: below ground surface
BR: bedrock
OB: overburden
PEWM-L: Pre-Envirite Waste Material - Landfill
PEWM-R: Pre-Envirite Waste Material – Roadway

2.1.2 Groundwater Laboratory Analytical Program

Groundwater samples collected during the 2016 PCEMP events were submitted to Eurofins Spectrum Analytical, Inc. (Eurofins Spectrum) of Agawam, Massachusetts, for the following laboratory analyses:

- Volatile Organic Compounds (VOCs) by USEPA Method 8260C;
- Total Metals: arsenic, cadmium, chromium, copper, nickel, and zinc by USEPA Method 6010C.

As noted above, due to elevated turbidity measured during low flow sampling, sample aliquots were collected from MW-31S during the March and October 2016 sampling events which were field filtered, preserved in the field, and submitted for dissolved metals analysis. Note that with EPA approval (documented in an email dated March 16, 2016), barium and cyanide were dropped from the postclosure groundwater laboratory program.

Appendix B contains the Eurofins Spectrum laboratory report (SC26674).

2.1.3 Surface Water Sampling Program

Surface water samples were collected from within 2 to 3 feet of the shorelines adjacent to the landfill using disposable bottom-filling HDPE bailers inserted through the water column to just above the sediment-water interface. The water samples were immediately transferred to laboratory-supplied containers containing the appropriate sample preservative for each analytical method. Samples were maintained on ice until delivery to the analytical laboratory.

For the metals analyses, surface water samples were field-filtered through 0.45 micron filters prior to preservation with nitric acid in the field so the resulting metals analyses reflect dissolved metals concentrations. This was done to facilitate comparison to Connecticut Surface Water Quality Standards.

2.1.4 Surface Water Laboratory Analytical Program

The surface water samples were submitted to Spectrum for laboratory analyses for the following parameters:

- VOCs by USEPA Method 8260C; and
- Dissolved Metals: arsenic, cadmium, copper, and zinc by USEPA Method 6020A.

2.2 Sample Design Logistics

Table 2 summarizes the sample design logistics for the 2016 PCEMP monitoring events.

Table 2. Sample Design Logistics

Sampling Matrix	Parameter	Analytical Method Reference	Number of Samples	Sampling Frequency	Sampling Period
Groundwater	VOCs	SW-846/ USEPA Method 8260C	11 Primary Samples 1 Trip Blank 1 Field Duplicate 1 Equipment Blank	Semiannual	March and October 2016
	Total Metals	SW-846/ USEPA Method 6010C	11 Primary Samples 1 Field Duplicate 1 Equipment Blank		
	Cyanide	SW-846/ 335.4/9012B	11 Primary Samples 1 Field Duplicate 1 Equipment Blank		
Surface Water – Naugatuck River and Branch Brook	VOCs	SW-846/ USEPA Method 8260C	4 Primary Samples 1 Field Duplicate 1 Equipment Blank	Semiannual	March and October 2016
	Dissolved Metals	SW-846/ USEPA Method 6020A			

2.3 Groundwater and Surface Water Gauging Events

Comprehensive groundwater elevation gauging events were conducted on March 30 and October 3, 2016, prior to the initiation of sampling activities. Depth to groundwater in each viable groundwater monitoring well was measured to the nearest 0.01 foot using an electronic interface probe.

The following is noteworthy with respect to the groundwater gauging conducted during this monitoring period:

- Although their exact construction details are unknown, water levels from shallow wells UNK-2, UNK-4, and UNK-5S were used to generate the overburden groundwater elevation contours because the water levels were measured to be within 10 feet of the bottom of the wells, within the presumed 10-foot screened interval.

Appendix A contains the groundwater elevation data field forms for the October 3, 2015 gauging event. **Table 3** summarizes the depth to groundwater and elevation data for the March and October 2016 gauging events and the calculated vertical hydraulic gradients at all well couplet and triplet locations.

3. DISCUSSION OF RESULTS

This annual report documents the March and October 2016 monitoring events (dates, samples collected, etc.) and the associated observations and analytical results, including tabulated field and analytical data. This report includes a discussion of QA/QC sample results and overburden and bedrock groundwater contour maps depicting the inferred groundwater flow directions beneath the landfill.

This annual report includes all of the components of the semiannual reports, as well as a discussion of groundwater and surface water quality trends and the results the data validation activities (see QAPP/SAP, Section 19) noting any identified QA problems and implications and/or resolution. Finally, the annual reports renders an opinion regarding the adequacy of the current monitoring program and makes recommendations regarding modifications to the PCEMP, if warranted.

3.1 Groundwater Elevation Plans and Inferred Groundwater Flow Directions

Overburden and bedrock groundwater elevation contours were developed using Surfer© surface mapping system software employing the kriging algorithm.

As requested by USEPA, groundwater elevation data from bedrock monitoring well MW-55B and deep overburden well MW-51D were used when generating the overburden groundwater elevation contours.

3.1.1 March 30, 2016 Groundwater Elevations

The first quarter 2016 gauging of the on-Site wells was completed on March 30, 2016, and the resulting overburden and bedrock groundwater elevation contours are depicted on **Figures 3-1** and **3-2**, respectively.

Based on the March 30, 2016 contours, shallow overburden groundwater flows in a general south-southwesterly direction beneath the landfill under a horizontal hydraulic gradient of approximately 0.0063 feet of head per foot of horizontal distance (ft/ft). Bedrock groundwater flows in a general south to south-southwest direction beneath the landfill under a horizontal hydraulic gradient of approximately 0.0049 ft/ft.

The March 2016 overburden and bedrock groundwater elevation contours are generally consistent with previous quarterly gauging events and support the conclusion that shallow overburden groundwater discharges to Branch Brook in the reach immediately south of the landfill property.

3.1.2 October 30, 2016 Groundwater Elevations

The third quarter 2016 gauging of the on-Site wells was completed on October 30, 2016, and the resulting overburden and bedrock groundwater elevation contours are depicted on **Figures 3-3** and **3-4**, respectively.

Based on the October 3, 2016 contours, shallow overburden groundwater flows in a general south-southwesterly direction beneath the landfill under a horizontal hydraulic gradient of approximately 0.0031 ft/ft. Bedrock groundwater flows in a general south to south-southwest direction beneath the landfill under a horizontal hydraulic gradient of approximately 0.0040 ft/ft.

The October 2016 overburden and bedrock groundwater elevation contours are generally consistent with previous quarterly gauging events and support the support the conclusion that shallow overburden groundwater discharges to Branch Brook in the reach immediately south of the landfill property.

3.1.3 2016 Horizontal Hydraulic Gradient Summary

Date	I_H Overburden (ft/ft)	I_H Bedrock (ft/ft)
March 30, 2016	0.0063	0.0049
October 3, 2016	0.0031	0.0040

3.1.4 2016 Vertical Hydraulic Gradients

Table 3 summarizes the groundwater elevation data and vertical hydraulic gradients for the March 30th and October 3rd 2016 gauging events. Note that the vertical hydraulic gradients were considered to be negligible at well couplets where the groundwater elevation difference was less than 0.1 feet. **Figure 3-5** depicts the vertical hydraulic gradients at each well couplet for the two 2016 gauging events.

Vertical Hydraulic Gradients

Upward		Downward	
3/30/16	**10/3/16**	**3/30/16**	**10/22/16**
		MW-31S/D	MW-31S/D
MW-31D/B			
		MW-32S/D	MW-32S/D
		MW-37D/B	
MW-41S/D	MW-41S/D		
MW-41D/B	MW-41D/B		
MW-42S/B	MW-42S/B		
MW-44D/B			
MW-51D/B	MW-51D/B		
		MW-61S/D	
MW-61D/B			
MW-62/62B	MW-62/62B		

- Vertical hydraulic gradients were upward during both gauging events at downgradient well couplets MW-41S/D, MW-41D/B, MW-42S/B, internal well couplet MW-51D/B, and eastern perimeter well couplet MW-62/62B indicating the potential for upward groundwater flow between these zones.
- Vertical hydraulic gradients were downward during both gauging events at northeastern perimeter overburden well couplet MW-31S/D in the vicinity of the PEWM-R; and northwest perimeter overburden well couplet MW-32S/D indicating the potential for downward groundwater flow between these zones.

- Vertical hydraulic gradients were upward at northeastern perimeter overburden-bedrock well couplet MW-31D/B; downgradient overburden-bedrock well couplet MW-44D/B; western perimeter overburden-bedrock well couplet MW-61D/B during the March event; and negligible otherwise.
- Vertical hydraulic gradients were downward at western perimeter overburden well couplet MW-61S/D; and overburden-bedrock well couplet MW-37D/B during the March event and negligible otherwise.
- Vertical hydraulic gradients were negligible during both gauging events at downgradient overburden well couplets MWMW-43S/D and MW-44S/D.

- **Figure 3-6** depicts the March 2016 shallow overburden groundwater elevation contours overlaid on the bedrock groundwater elevation contours. Beneath the southern ¾ of the landfill area, bedrock groundwater elevations are generally higher than overburden indicting the overall potential for upwards flow from bedrock into overburden.

- **Figure 3-7** depicts the October 2016 shallow overburden groundwater elevation contours overlaid on the bedrock groundwater elevation contours. In general, in areas to the southeast of the equal potential line, beneath the majority of the Site, bedrock groundwater elevations are generally higher than overburden indicting the overall potential for upwards flow from bedrock into overburden. Conversely, in areas to the northwest of the equal potential line, bedrock groundwater elevations are generally lower than overburden indicting the overall potential for downwards flow from overburden into bedrock.

.

3.2 Groundwater Quality Discussion

Groundwater quality data for the March and October 2016 semiannual PCEMP monitoring events is summarized in **Table 4**. The stabilized geochemical parameters measured in the field during low-flow sampling activities are summarized in **Table 5**.

The groundwater quality data are compared to the following groundwater criteria listed the Connecticut Remediation Standard Regulations (RSRs), Section 22a-133k-1 through 22a-133k-3, dated June 27, 2013:

- Surface Water Protection Criteria (SWPC) listed in Appendix D of the RSRs
- Industrial/Commercial Volatilization Criteria (I-VC) listed in Appendix E of the RSRs.

Note that the Connecticut Department of Energy and Environmental Protection (CTDEEP) RSRs[1] are provided on the groundwater analytical summary tables for reference only.

3.2.1 March 2016 Groundwater Quality Data

The following summarizes the groundwater quality data for the March 2016 sampling event:

- Cadmium was not detected above RDLs in any of the groundwater samples collected. Of the metals detected at concentrations above RDLs, only arsenic, copper, and zinc were detected at concentrations above applicable SWPC.

  - Arsenic was detected at concentrations exceeding the 0.004 mg/L SWPC in the samples collected from interior well MW-30, and downgradient wells MW-43S and MW-44D,. The

[1] It should be noted that Envirite's legal counsel had advised that, according to the Regulations of Connecticut State Agencies Section 22a-133k-1(b), the RSRs do not apply to areas that are affected by discharges allowed under a groundwater discharge permit issued pursuant to Section 22a-430. Envirite has held a groundwater discharge permit since 1984 at the Thomaston facility. Thus, while compliance with RSRs is one indicator of potential need for remediation to CTDEEP, USEPA, and Envirite, these regulations are not strictly applicable to groundwater constituent levels at the Thomaston facility.

maximum arsenic concentration (0.0157 mg/L) was detected in the sample from MW-43S while the concentrations in the samples from MW-30 and MW-44D were only slightly above the SWPC.

- Copper was detected at concentrations exceeding the 0.048 mg/L SWPC in the samples collected from wells MW-51D (located on the interior of the Site immediately west of the former treatment building) and downgradient well MW-43D with the maximum concentration (0.536 mg/L) detected in the sample from MW-43D indicating the predominant source of zinc in Site groundwater is likely a result of the landfilled treatment residues in the southern landfill cell between MW-51D and MW-43D.

- Zinc was detected at concentrations exceeding the 0.123 mg/L SWPC in the samples collected from wells MW-31S (located immediately adjacent to the PEWM-R) and downgradient well MW-43D with the maximum concentration (2.07 mg/L total/1.32 mg/L dissolved) detected in the sample from MW-31S indicating the predominant source of zinc in Site groundwater is dissolution from the PEWM-R.

- Detected zinc concentrations in samples MW-41S, MW-41D, MW-43S, and MW-53D were qualified as estimated, non-detect (UJ) due to the detection in the groundwater equipment blank. However, this detection does not affect data usability, as the detected concentrations in these samples were below applicable SWPC (see **Section 3.4)**.

- VOCs detected above analytical RDLs in the groundwater samples included 2-butanone (MEK), cis-1,2-dichloroethene (cis-1,2-DCE), ethylbenzene, 4-methyl-2-pentanone (MIBK), tetrachloroethene (PCE), toluene, trichloroethene (TCE), 1,2,4-trimethylbenzene, vinyl chloride (VC), and xylenes.

  - Although the individual VOC concentrations were below applicable groundwater criteria, the highest overall concentrations of VOCs were detected in the sample collected from well MW-31S (located immediately adjacent to the PEWM-R). It should be noted that the RDLs for several VOCs in MW-31S were elevated due to the elevated concentrations of other target compounds.

  - VC was the only VOC detected at concentrations exceeding the 2 µg/L I-VC in four samples collected from well MW-53D immediately downgradient of the PEWM-R interior well MW-30, and downgradient wells MW-43D and MW-44D. The highest vinyl chloride concentration was detected in interior well MW-30 (12.2 µg/L). Vinyl chloride was also detected below the I-VC at downgradient well MW-51D. As noted above, the RDL for VC in MW-31S was relatively elevated (500 µg/L) due to the elevated concentrations of other target compounds.

  - VOCs were detected at concentrations below applicable standards in the samples collected from PEWM-R well MW-31S; interior well MW-51D; and downgradient wells MW-41S, MW-41D, MW-42S, MW-43S, and MW-50S.

3.2.2 October 2016 Groundwater Quality Data

The following summarizes the groundwater quality data for the October 2016 sampling event:

- Of the metals detected at concentrations above RDLs, only arsenic, copper, and zinc were detected at concentrations above applicable SWPC.

  - Arsenic was detected at concentrations exceeding the 0.004 mg/L SWPC in the samples collected from eastern perimeter well MW-53D (located downgradient of the PEWM-R) and downgradient wells MW-43S and MW-44D. Arsenic concentrations in these wells ranged from 0.0046 mg/L in MW-44D to 0.0088 mg/L in MW-43S. Arsenic was not detected above RDLs in the remaining wells.

  - Copper was detected at concentrations exceeding the 0.048 mg/L SWPC in the samples collected from wells MW-51D (located on the interior of the Site immediately west of the former treatment building) and downgradient well MW-43D with the maximum concentration (0.473 mg/L) detected in the sample from MW-43D.

  - Zinc was detected at concentrations exceeding the 0.123 mg/L SWPC in the samples collected from wells MW-31S (located immediately adjacent to the PEWM-R) and downgradient well MW-43D, with the maximum concentration (0.447 mg/L) detected in the sample from MW-43D. This is atypical as the highest zinc concentrations, by an order of magnitude, are typically detected in the samples from MW-31S.

- VOCs detected above analytical RDLs in the groundwater samples included 1,1-dichloroethene (1,1-DCE), cis-1,2-DCE, trans-1,2-dichloroethene (trans-1,2-DCE), MEK, ethylbenzene, MIBK, PCE, toluene, TCE, 1,2,4-trimethylbenzene, VC, xylenes, and tert-butanol (TBA).

  - Although the individual VOC concentrations were below applicable groundwater criteria, the highest overall concentrations of VOCs were detected in the sample collected from well MW-31S (located immediately adjacent to the PEWM-R). It should be noted that the RDLs for several VOCs in MW-31S were elevated due to the elevated concentrations of other target compounds.

  - VC and PCE were the only VOCs detected at concentrations exceeding applicable CT groundwater criteria.

    - VC was detected above the 2 µg/L I-VC in the two samples collected from interior well MW-30, and downgradient well MW-43D. The highest vinyl chloride concentration was detected in interior well MW-30 (44.2 µg/L). Vinyl chloride was also detected below the I-VC at downgradient well MW-51D. As noted above, the RDL for VC in MW-31S was relatively elevated (200 µg/L) due to the elevated concentrations of other target compounds.
    - PCE was detected above the 88 µg/L SWPC in the sample collected from MW-53D, at 102 µg/L. PCE was detected above RDLs, but below SWPC in all of the other wells sampled except MW-31S where the RDL was relatively elevated, as noted above.

  - VOCs were detected at concentrations below applicable standards in the samples collected from PEWM-R well MW-31S; interior well MW-51D; and downgradient wells MW-41S, MW-41D, MW-42S, MW-43S, and MW-50S.

3.2.3 2016 Groundwater Criteria Exceedances

Table 6 summarizes the COCs that exceeded the applicable groundwater criteria at least once during the March and October 2016 groundwater sampling events.

Table 6. Groundwater Criteria Exceedances - 2016

Well	COC	March 2016	October 2016	SWPC	I/C-VC
MW-30	As	0.0041 mg/L	< 0.004 mg/L	0.004 mg/L	-
	VC	12.2 µg/L	44.2 µg/L	15,750 µg/L	2 µg/L
MW-31S	Zn	2.07 mg/L	0.431 mg/L	0.123 mg/L	-
MW-43S	As	0.0157 mg/L	0.0088 mg/L	0.004 mg/L	-
MW-43D	Cu	0.536 mg/L	0.473 mg/L	0.048 mg/L	-
	Zn	0.49 mg/L	0.447 mg/L	0.123 mg/L	-
	VC	2.5 µg/L	3.2 µg/L	15,750 µg/L	2 µg/L
MW-44D	As	0.0044	0.0046 mg/L	0.004 mg/L	-
	VC	5.3 µg/L	5.7 µg/L	15,750 µg/L	2 µg/L
MW-51D	Cu	0.0786 mg/L	0.0657 mg/L	0.048 mg/L	-
MW-53D	As	< 0.004 mg/L	0.0074 mg/L	0.004 mg/L	-
	PCE	37.5 µg/L	102 µg/L	88 µg/L	3820 µg/L
	VC	2.6 µg/L	<10 µg/L	15,750 µg/L	2 µg/L

- indicates groundwater criteria was not exceeded or is not established.

1. As: arsenic PCE: tetrachloroethene
2. Cu: copper TCE: trichloroethene
3. VC: vinyl chloride Zn: zinc
4. µg/L: microgram(s) per liter mg/L: milligram(s) per liter
5. <500 µg/L indicates COC was not detected at a concentration above the 500 µg/L Reportable Detection Limit (RDL)
6. Note that the elevated RDLs in MW-31S are due to the presence of other COCs (i.e. toluene and MIBK) in the sample at elevated concentrations greater than 10,000 µg/L.

3.2.4 Groundwater Quality Trends

Concentration trend plots from 2008 to present were generated for the following constituents/wells to assess seasonal variability and overall trends.

Figure 4-1 Copper: MW-31S, MW-43D and MW-51D
Figure 4-2 Zinc: MW-31S and MW-43D
Figure 4-3 Vinyl Chloride: MW-30, MW-31S, MW-43D, MW-44D, MW-51D, and MW-53D
Figure 4-4 PCE: MW-30 and MW-MW-53D

Note that for non-detects, one half of the RDL was used as a surrogate value on the concentration trend plots.

Copper: MW-31S, MW-43D and MW-51D

- The maximum copper concentrations have been detected in the samples collected from downgradient deep overburden monitoring well MW-43D.
  - Copper concentrations in MW-43D have ranged from approximately 0.2 mg/L to 1.0 mg/L, above the 0.048 mg/L SWPC, exhibiting no discernable trend since the initiation of low flow sampling in 2014.
- Copper concentrations in MW-51D were generally an order of magnitude lower than MW-43D, ranging from approximately 0.06 mg/L to 0.08mg/L, above the 0.048 mg/L SWPC, also exhibiting no discernable trend.
- In contrast, copper concentrations in MW-31S, adjacent to the PEWM-R, have generally been below the 0.048 mg/L SWPC, with one exception (August 2012 = 0.083 mg/L).

Zinc: MW-31S and MW-43D

- In contrast to copper concentrations, the maximum zinc concentrations have been detected in the samples collected from MW-31S, adjacent to the PEWM-R.
  - Zinc concentrations in MW-31S ranged from approximately 0.3 mg/l to 3.1 mg/L, above the 0.123 mg/L SWPC, exhibiting no discernable trend.
- Zinc concentrations in MW-43D were generally an order of magnitude lower than MW-31S, ranging from approximately 0.2 mg/l to 0.8 mg/L, above the 0.123 mg/L SWPC, exhibiting no discernable trend.

Vinyl Chloride: MW-30, MW-31S, MW-43D, MW-44D, MW-51D, and MW-53D

- The maximum vinyl chloride concentrations have been detected in the samples collected from overburden well MW-31S, located in the immediate vicinity of the PEWM-R, ranging from 100 to 1,100 µg/L above the 2 µg/L I-VC.
  - Vinyl chloride concentrations in MW-31S exhibit a decreasing trend since the initiation of low flow sampling in 2014.
- The second highest vinyl chloride concentrations have been detected in the samples collected from deep overburden well MW-30, located downgradient from the northern landfill cell and the PEWM-L where detected concentrations ranged from 1 to 198 µg/L above the 2 µg/L I-VC.
  - No discernable trends are evident in the vinyl chloride concentrations in MW-30 since the initiation of low flow sampling in 2014.
- The third highest vinyl chloride concentrations, ranging from 7 to 31 µg/L, have been detected in the samples collected from deep overburden well MW-53D, located along the eastern perimeter of the site, downgradient from the PEWM-R.
- Lower concentrations of vinyl chloride, generally ranging from non-detect to 8 µg/L, have been detected in the samples collected from downgradient deep overburden monitoring wells MW-43D and MW-44D; and shallow overburden well MW-51D located adjacent to the former treatment building.
- These data indicate that the biodegradation of PCE and TCE through reductive dechlorination is actively occurring in site groundwater.

PCE: MW-30

- The maximum PCE concentrations, ranging from 4.2 to 131 µg/L above the 88 µg/L SWPC, have been detected in the samples collected from deep overburden well MW-30. There is no

apparent trend in the PCE concentration data; however, the PCE concentration has exceeded the SWPC in only 5/24 sampling events.

- PCE has been detected in samples collected from deep overburden well MW-53D, located downgradient of the PEWM-R, at concentrations ranging from 14 to 112 µg/L. above the 88 µg/L SWPC with no apparent trend . The PCE concentration has exceeded the SWPC in 2/6 sampling events.
- PCE has not been detected at concentrations exceeding the SWPC in any of the samples collected from the downgradient monitoring wells.
- It is noted that the presence of PCE in the samples collected from MW-31S could potentially be masked by elevated RDLs due to elevated toluene concentrations in this well; however, since 2008, PCE has never been detected in the groundwater samples collected from MW-31S, at RDLs ranging from 5 – 1000 µg/L.

3.3 Surface Water Quality Discussion

Table 7 summarizes the surface water quality data for the March and October 2016 monitoring events. Surface water samples SW-BB-1, SW-BB-2, SW-NR-1, and SW-NR-2 were collected from Branch Brook and the Naugatuck River, upstream and downstream of the landfill, respectively. **Figure 2** depicts the location of the surface water samples.

The surface water quality data were compared to the Numerical Water Quality Criteria for Chemical Constituents listed in the Connecticut Water Quality Standards, Sections 22a-426-1 to 22a-426-9, effective October 10, 2013. Specifically, the surface water quality data were compared to the Acute and Chronic Freshwater Aquatic Life Criteria listed in Table 3, Section 22a-426-9 Environmental Criteria.

The following summarizes the surface water quality data for the March 2016 sampling event.

- No VOCs were detected above analytical RDLs in the March 2016 surface water samples from Branch Brook or the Naugatuck River.

- Cadmium was detected in all of the surface water samples at concentrations below the established acute and chronic Freshwater Aquatic Life Criteria.

- Although copper was detected in all of the surface water samples above RDLs; all of the reported copper concentrations are qualified as estimated, non-detect (UJ) due to the detection in the surface water equipment blank. It should be noted that this does not affect data usability as all reported concentrations were below the established acute and chronic Freshwater Aquatic Life Criteria. In addition, there was no significant difference between upstream and downstream copper concentrations (see **Section 3.4**).

- Although zinc was detected in all of the surface water samples above RDLs; all of the reported copper concentrations are qualified as estimated, non-detect (UJ) due to the detection in the laboratory method blank. It should be noted that this does not affect data usability as all reported concentrations were below the established acute and chronic Freshwater Aquatic Life Criteria. In addition, there was no significant difference between upstream and downstream zinc concentrations (see **Section 3.4**).

- Arsenic (1 sample), cadmium, and zinc (all samples) were detected at estimated concentrations (j-flagged) below the established acute and chronic Freshwater Aquatic Life Criteria. The concentrations were flagged as estimated because they fell between the Method Detection Limits (MDLs) and Reportable Detection Limit (RDLs). It was requested

that the lab report estimated concentrations to increase reported sensitivity (and lower the reporting thresholds).

The following summarizes the surface water quality data for the October 2016 sampling event.

- No VOCs were detected above analytical RDLs in the October 2016 surface water samples from Branch Brook or the Naugatuck River.
- Cadmium was the only metal detected above analytical RDLs in the surface water samples. All surface water cadmium concentrations were below the established acute and chronic Freshwater Aquatic Life Criteria.
- Cadmium was also detected in the surface water equipment blank at 0.00002 mg/L; however, this detection does not affect data usability since the cadmium concentrations detected in the equipment blank and all primary samples were below applicable Freshwater Aquatic Life Criteria.

3.4 October 2016 Data Validation and Usability Discussion

The data validation report prepared to assess the validity and usability of laboratory analytical data generated from samples collected during the October 2016 PCEMP groundwater and surface water monitoring event is presented in **Appendix C**. The QA/QC data and data validation report for the March event was presented and discussed in the March 2016 Semiannual Postclosure Environmental Monitoring Event Report, dated May 2015. No corrective actions were necessary based on the March 2016 data validation report.

The analytical data were evaluated for QA/QC based on ENVIRON's QAPP/ SAP for the Site (December 2013), USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008), and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010). Per the December 2013 QAPP/SAP, a USEPA Tier I data validation was performed on all laboratory data. The QAPP/SAP indicated that a minimum of 10% of the data would undergo USEPA Tier II data validation. All of the groundwater and surface water data in Spectrum laboratory report SDG SC14098 underwent USEPA Tier II data validation in conjunction with this effort.

Tables 4 and **7** summarize the QA/QC blank sample data for the March and October 2016 groundwater and surface water sampling events, respectively. The QA/QC duplicate sample data are also included in the groundwater and surface water quality data summary tables discussed above.

- No VOCs were detected above analytical RDLs in the groundwater or surface water equipment blank or the trip blank QA/QC samples for the October 2016 monitoring event.

- The groundwater and surface water duplicate sample results for the October 2016 monitoring event were consistent with the primary sample results and do not indicate issues with analytical precision.

- The detection of cadmium at low concentrations in the surface water equipment blank and the associated implications are discussed below.

The data validation report (**Appendix C**) summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness, and comparability relative to the project data quality objectives. The report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty, and bias that may affect the overall usability of the data.

- The results of the data validation efforts indicate the data are usable for their intended purpose, as qualified, based on an evaluation of the QC parameters discussed in the data validation report.

- Cadmium was detected at an estimated concentration (J-flagged) of 0.00002 mg/L in the surface water equipment blank associated with the October 2016 surface water analysis. As such, all detections of cadmium below 5X the concentration detected in the equipment blank (0.0001 mg/L) were qualified as UJ which applies to all of the primary surface water samples as well as the surface water duplicate. These detections did not affect data usability as all UJ cadmium concentrations in the equipment blank and all primary samples were below the 0.000125 mg/L chronic Freshwater Aquatic Life Criteria.

4. CONCLUSIONS AND RECOMMENDATIONS

Ramboll Environ has completed the semiannual PCEMP sampling event for 2016. No significant data anomalies were identified during this sampling event. Ramboll Environ recommends that the environmental monitoring program detailed in the revised PCEMP, dated November 10, 2014, continue to be implemented through 2017 with the following modifications initially proposed in the revised PCEMP.

The revised PCEMP proposed that the following metals be eliminated from groundwater laboratory program since they had not been detected above applicable SWPC in the groundwater samples collected during the six year period from 2008 – 2014 (18 sampling events):

- Barium, Chromium, and Nickel

However, the USEPA requested that these metals continue to be analyzed to ensure that the total metals concentrations were adequately characterized under the newly adopted low-flow groundwater sampling protocol. Accordingly, it was proposed that barium, chromium, and nickel be included in the groundwater laboratory analytical program through 2015 after which they would be dropped if their concentrations did not exceed applicable SWPC.

In addition, the revised PCEMP proposed to drop indicator parameters from the overall groundwater laboratory analytical program for the site based on extensive data collected during the historical PCEMP sampling events; however; it was agreed that additional samples be collected from MW-43S for cyanide analysis through 2015 after which it would be dropped if concentrations do not exceed the applicable SWPC.

Based on data collected during the 2015 sampling events, with EPA approval (documented in an email dated March 16, 2016), barium and cyanide were dropped from the postclosure groundwater laboratory program; however, chromium and nickel were retained because the EPA considers them to be known drivers of ecological risk from surficial soils on-site.

Figures 4-5 and 4-6 depict concentration trend data for chromium and nickel in groundwater against their SWPC (0.11 mg/L and 0.88 mg/l, respectively), back to October 2008 (24 rounds). The following summarizes the detections of chromium and nickel in Site groundwater samples since they were initially proposed to be dropped from the analytical program.

- Neither chromium or nickel were detected at concentrations exceeding their respective SWPC in any of the groundwater samples collected during the 2015 or 2016 sampling events or prior events dating back to 2008.

Although chromium and nickel are COCs in surficial soils at the Site, based on the extensive data set, it is recommended that chromium and nickel be dropped from the groundwater analytical program going forward as they do not represent a concern to surface water quality resulting from groundwater discharge. No additional changes are recommended to the PCEMP at this time.

The next scheduled environmental monitoring event is the semiannual PCEMP sampling event slated for March 2017.

TABLES

Table 3
Groundwater Elevation Data and Vertical Hydraulic Gradients
March and October 2016

Envirite RCRA Facility
Old Waterbury Road, Thomaston, CT

Well	Screened Interval Top (feet BGS)	Screened Interval Bottom (feet BGS)	Type	Ground Elevation (feet)	TOC Elevation (feet)	Stickup (feet)	3/30/16 Depth to Water (ft BTOC)	3/30/16 Groundwater Elevation (feet)	3/30/16 Vertical Gradient (feet/foot)	10/3/16 Depth to Water (ft BTOC)	10/3/16 Groundwater Elevation (feet)	10/3/16 Vertical Gradient (feet/foot)	Comments
MW-30	38	48	DOB	342.13	341.74	-0.39	17.22	324.52		18.40	323.34		
MW-31S	17	27	OB	340.13	340.29	0.16	15.51	324.78	0.0207	16.54	323.75	0.0152	
MW-31D	26.5	31.5	DOB	339.90	341.77	1.87	17.14	324.63	-0.0115	18.13	323.64	Negligible	
MW-31B	37	47	BR	339.90	341.79	1.89	17.01	324.78		18.10	323.69		
MW-32S	14	24	OB	340.06	340.66	0.60	15.21	325.45	0.0311	17.04	323.62	0.0212	
MW-32D	24.5	39.5	DOB	339.87	340.37	0.50	15.33	325.04		17.03	323.34		
MW-33	15	25	OB	339.05	340.47	1.42	18.16	322.31		18.83	321.64		
MW-36	21.5	31.5	DOB	326.77	328.74	1.97	6.37	322.37		7.15	321.59		Tubing and bailer wedged in well/Could not remove
MW-37D	27	32	DOB	325.55	327.53	1.98	5.18	322.35	0.0099	6.04	321.49	Negligible	
MW-37B	55.7	65.7	BR	325.53	327.39	1.86	5.35	322.04		5.88	321.51		
MW-41S	10	20	OB	332.94	334.73	1.79	12.01	322.72	-0.0263	12.82	321.91	-0.0274	
MW-41D	17	32	OB	332.94	334.48	1.54	11.51	322.97	-0.0066	12.31	322.17	-0.0059	
MW-41B	45	55	BR	332.83	334.61	1.78	11.47	323.14		12.29	322.32		
MW-42S	22.5	32.5	OB	339.55	341.16	1.61	18.86	322.30	-0.0081	19.66	321.50	-0.0067	
MW-42B	65	75	BR	340.09	342.15	2.06	19.51	322.64		20.37	321.78		
MW-43S	22.5	32.5	OB	339.26	340.41	1.15	18.20	322.21	Negligible	18.92	321.49	Negligible	
MW-43D	58	68	DOB	339.21	340.65	1.44	18.46	322.19		19.10	321.55		
MW-44S	17	27	OB	337.97	338.63	0.66	16.45	322.18	Negligible	17.14	321.49	Negligible	
MW-44D	62	72	OB	338.01	339.23	1.22	17.05	322.18	-0.0090	17.70	321.53	Negligible	
MW-44B	75	85	BR	337.73	340.29	2.56	17.99	322.30		18.68	321.61		
MW-50S	13.7	18.7	OB	336.30	337.69	1.39	13.37	324.32		15.21	322.48		
MW-51D	18.3	28.3	OB	340.79	340.41	-0.38	16.42	323.99	-0.0148	17.60	322.81	-0.0291	
MW-51B	38.5	48.5	BR	340.73	340.27	-0.46	15.98	324.29		16.87	323.40		
MW-52D	43.5	58.5	OB	342.86	342.47	-0.39	N/M			N/M			Bailer and tubing wedged in well
MW-53D	25	40	OB	338.18	339.77	1.59	15.16	324.61		16.14	323.63		
MW-55B	15	25	BR	339.81	341.28	1.47	14.72	326.56		17.73	323.55		
MW-61S	14	20	OB	337.31	339.34	2.03	15.78	323.56	0.0083	17.02	322.32	Negligible	
MW-61D	42	52	OB	337.34	339.36	2.02	16.05	323.31	-0.0106	17.09	322.27	Negligible	
MW-61B	59	69	BR	337.38	339.54	2.16	16.05	323.49		17.18	322.36		
MW-62	19	21	OB	336.90	338.53	1.63	14.67	323.86	-0.0118	15.37	323.16	-0.0217	
MW-62B	26	36	BR	336.86	338.61	1.75	14.62	323.99		15.21	323.40		
MW-63	14.5	24.5	OB	343.05	342.69	-0.36	16.88	325.81		18.43	324.26		
UNK-1	Unknown		?	334.14	N/M	-	N/M	-	-	N/M	-	-	Filled with concrete
UNK-2	Unknown	19.53	?	333.47	334.61	1.14	12.67	321.94	-	13.30	321.31	-	Unknown Well
UNK-3	Unknown	35.28	?	329.54	330.75	1.21	9.05	321.70	-	9.63	321.12	-	Unknown Well
UNK-4	Unknown	27.14	?	338.22	339.75	1.53	17.57	322.18	-	18.29	321.46	-	Unknown Well
UNK-5S	Unknown	13.85	?	325.45	327.26	1.81	N/M	-	-	5.70	321.56	-	Rodent in Well
UNK-5D	Unknown	41.00	?	325.48	327.55	2.07	5.73	321.82	-	6.24	321.31	-	Unknown Well

Indicates well is located across Branch Brook
Indicates well is located off Site on Thomaston POTW property and adjacent roadway
Indicates groundwater elevation used to generate overburden groundwater elevation contours
Indicates upward hydraulic gradient
Indicates downward hydraulic gradient

BR: bedrock well
OB: shallow overburden well
DOB: deep overburden well
TOC: top of well casing
BTOC: below top of well casing
BGS: below ground surface
N/M: not measured

TABLE 4

Groundwater Quality Data
March and October 2016

Envirite RCRA Landfill
Old Waterbury Road, Thomaston, CT

			PEWM Wells												Interior Wells										Downgradient Wells			
			MW-31S 3/31/2016		MW-31S (Filtered) 3/31/2016		MW-31S 10/4/2016		MW-31S (Filtered) 10/4/2016		MW-53D 3/31/2016		MW-53D 10/4/2016		MW-30 3/31/2016		MW-30 10/4/2016		MW-51D 3/31/2016		MW-51D (DUP) 3/31/2016		MW-51D 10/4/2016		MW-41S 3/30/2016		MW-41S 10/4/2016	
Analytes	CT RSRs																											
(concentration)	I/C VC	SWPC	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL
Total Metals (mg/l)																												
Arsenic	-	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	0.0074	0.004	0.0041	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004
Cadmium	-	0.006	BRL	0.0025	BRL	0.0025	0.0025	0.0025	0.0006	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025
Chromium	-	0.11	0.042	0.005	0.0342	0.005	0.0192	0.005	0.016	0.005	BRL	0.005	0.0078	0.005	0.0066	0.005	BRL	0.005	0.0056	0.005	0.0055	0.005	BRL	0.005	BRL	0.005	BRL	0.005
Copper	-	0.048	0.0072	0.005	BRL	0.005	0.0112	0.005	BRL	0.005	BRL	0.005	0.0173	0.005	0.015	0.005	0.0062	0.005	0.0786	0.005	0.0747	0.005	0.0657	0.005	BRL	0.005	0.0057	0.005
Nickel	-	0.88	0.111	0.005	0.117	0.005	0.02	0.005	0.022	0.005	0.0086	0.005	0.0274	0.005	0.0354	0.005	0.0323	0.005	0.0472	0.005	0.0478	0.005	0.0298	0.005	BRL	0.005	BRL	0.005
Zinc	-	0.123	2.07	0.005	1.32	0.005	0.431	0.005	0.0712	0.005	0.0096	0.005	0.0246	0.005	0.0423	0.005	BRL	0.005	0.0676	0.05	0.0674	0.05	0.0545	0.05	0.0218	0.005	0.022	0.005
Volatile Organic Compounds (µg/l)																												
1,1,2-Trichlorotrifluoroethane (Freon 113)	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL		BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Acetone	50,000	-	BRL	5000	NT	NT	BRL	2000	NT	NT	BRL	10	BRL	100	BRL	50	BRL	50	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10
Acrylonitrile	-	20	BRL	250	NT	NT	BRL	100	NT	NT	BRL	0.5	BRL	5	BRL	2.5	BRL	2.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Benzene	530	710	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromobenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromochloromethane	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromodichloromethane	-	-	BRL	250	NT	NT	BRL	100	NT	NT	BRL	0.5	BRL	5	BRL	2.5	BRL	2.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Bromoform	3,800	10,800	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromomethane	-	-	BRL	1000	NT	NT	BRL	400	NT	NT	BRL	2	BRL	20	BRL	10	BRL	10	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
2-Butanone (MEK)	50,000	-	10000	5000	NT	NT	10000	400	NT	NT	BRL	10	BRL	20	BRL	50	BRL	10	BRL	10	BRL	10	BRL	2	BRL	10	BRL	2
n-Butylbenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
sec-Butylbenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
tert-Butylbenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Carbon disulfide	-	-	BRL	1000	NT	NT	BRL	400	NT	NT	BRL	2	BRL	20	BRL	10	BRL	10	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Carbon tetrachloride	40	132	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Chlorobenzene	6,150	420,000	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Chloroethane	-	-	BRL	1000	NT	NT	BRL	400	NT	NT	BRL	2	BRL	20	BRL	10	BRL	10	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Chloroform	710	14,100	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Chloromethane	-	-	BRL	1000	NT	NT	BRL	400	NT	NT	BRL	2	BRL	20	BRL	10	BRL	10	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
2-Chlorotoluene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
4-Chlorotoluene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dibromo-3-chloropropane	-	-	BRL	1000	NT	NT	BRL	400	NT	NT	BRL	2	BRL	20	BRL	10	BRL	10	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Dibromochloromethane	-	1,020	BRL	250	NT	NT	BRL	100	NT	NT	BRL	0.5	BRL	5	BRL	2.5	BRL	2.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
1,2-Dibromoethane (EDB)	16	-	BRL	250	NT	NT	BRL	100	NT	NT	BRL	0.5	BRL	5	BRL	2.5	BRL	2.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Dibromomethane	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dichlorobenzene	50,000	170,000	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3-Dichlorobenzene	50,000	26,000	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,4-Dichlorobenzene	50,000	26,000	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Dichlorodifluoromethane (Freon12)	-	-	BRL	1000	NT	NT	BRL	400	NT	NT	BRL	2	BRL	20	BRL	10	BRL	10	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
1,1-Dichloroethane	50,000	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dichloroethane	90	2,970	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1-Dichloroethene	6	96	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
cis-1,2-Dichloroethene	-	-	4740	500	NT	NT	1790	200	NT	NT	69.8	1	374	10	221	5	493	5	50.8	1	53.6	1	83.8	1	2.4	1	8.1	1
trans-1,2-Dichloroethene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dichloropropane	60	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3-Dichloropropane	-	34,000	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
2,2-Dichloropropane	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1-Dichloropropene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
cis-1,3-Dichloropropene	-	-	BRL	250	NT	NT	BRL	100	NT	NT	BRL	0.5	BRL	5	BRL	2.5	BRL	2.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
trans-1,3-Dichloropropene	-	-	BRL	250	NT	NT	BRL	100	NT	NT	BRL	0.5	BRL	5	BRL	2.5	BRL	2.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Ethylbenzene	50,000	580,000	4240	500	NT	NT	2780	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Hexachlorobutadiene	-	-	BRL	250	NT	NT	BRL	100	NT	NT	BRL	0.5	BRL	5	BRL	2.5	BRL	2.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
2-Hexanone (MBK)	-	-	BRL	5000	NT	NT	BRL	400	NT	NT	BRL	10	BRL	20	BRL	50	BRL	10	BRL	10	BRL	10	BRL	2	BRL	10	BRL	2
Isopropylbenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
4-Isopropyltoluene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Methyl tert-butyl ether	50,000	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
4-Methyl-2-pentanone (MIBK)	50,000	-	22400	5000	NT	NT	2850	400	NT	NT	BRL	10	BRL	20	BRL	50	BRL	10	BRL	10	BRL	10	BRL	2	BRL	10	BRL	2
Methylene chloride	50,000	48,000	BRL	1000	NT	NT	BRL	400	NT	NT	BRL	2	BRL	20	BRL	10	BRL	10	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Naphthalene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
n-Propylbenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Styrene	2,065	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,1,2-Tetrachloroethane	50	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,2,2-Tetrachloroethane	100	110	BRL	250	NT	NT	BRL	100	NT	NT	BRL	0.5	BRL	5	BRL	2.5	BRL	2.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Tetrachloroethene	3,820	88	BRL	500	NT	NT	BRL	200	NT	NT	14.2	1	102	10	BRL	5	75.2	5	29.7	1	30.5	1	29.6	1	1.5	1	1.9	1
Toluene	50,000	4,000,000	15600	500	NT	NT	7920	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,3-Trichlorobenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,4-Trichlorobenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3,5-Trichlorobenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,1-Trichloroethane	50,000	62,000	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,2-Trichloroethane	19,600	1,260	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Trichloroethene	540	2,340	BRL	500	NT	NT	BRL	200	NT	NT	25.4	1	190	10	38.2	5	204	5	38.1	1	40	1	48.9	1	1.6	1	3.6	1
Trichlorofluoromethane (Freon 11)	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,3-Trichloropropane	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,4-Trimethylbenzene	-	-	515	500	NT	NT	290	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3,5-Trimethylbenzene	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Vinyl chloride	2	15,750	BRL	500	NT	NT	BRL	200	NT	NT	2.6	1	BRL	10	12.2	5	44.2	5	1	1	1.1	1	1	1	BRL	1	BRL	1
m,p-Xylene	50,000	-	7870	1000	NT	NT	5960	400	NT	NT	BRL	2	BRL	20	BRL	10	BRL	10	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
o-Xylene		-	2880	500	NT	NT	2100	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Tetrahydrofuran	-	-	BRL	1000	NT	NT	BRL	400	NT	NT	BRL	2	BRL	20	BRL	10	BRL	10	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Ethyl ether	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Tert-amyl methyl ether	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Ethyl tert-butyl ether	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Di-isopropyl ether	-	-	BRL	500	NT	NT	BRL	200	NT	NT	BRL	1	BRL	10	BRL	5	BRL	5	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Tert-Butanol / butyl alcohol	-	-	BRL	5000	NT	NT	BRL	2000	NT	NT	BRL	10	BRL	100	BRL	50	BRL	50	BRL	10	BRL	10	19.2	10	BRL	10	BRL	10
trans-1,4-Dichloro-2-butene	-	-	BRL	2500	NT	NT	BRL	1000	NT	NT	BRL	5	BRL	50	BRL	25	BRL	25	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5
1,4-Dioxane	-	-	BRL	10000	NT	NT	BRL	4000	NT	NT	BRL	20	BRL	200	BRL	100	BRL	100	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20
Ethanol	-	-	BRL	200000	NT	NT	BRL	40000	NT	NT	BRL	400	BRL	2,000	BRL	2000	BRL	1000	BRL	400	BRL	400	BRL	200	BRL	400	BRL	200

Notes

1. Groundwater criteria taken from Connecticut Remediation Standard Regulations (RSRs), Section 22a-133k-1 through 22a-133k-3, dated June 26, 2013.
2. SWPC = Surface Water Protection Criteria.
3. I/C VC = Industrial/Commercial Volatilization Criteria.
4. - indicates RSR standard not established.
5. RDL = Reportable Detection Limit
6. BRL = Below Reporting Limit
7. NT = Not Tested
8. Blue indicates RDL above RSR criteria.
9. Red indicates concentration exceeds RSR criteria.
10. Chromium SWPC indicates hexavalent chromium.
12. Green shading indicates concentration has been qualified as estimated, non-detect due to detections in laboratory method and/or equipment blank.

TABLE 4

Groundwater Quality Data
March and October 2016

Envirite RCRA Landfill
Old Waterbury Road, Thomaston, CT

			Downgradient Wells																								QA/QC			
	CT RSRs		MW-41D 3/30/2016		MW-41D 10/4/2016		MW-41D (DUP) 10/4/2016		MW-42S 3/30/2016		MW-42S 10/3/2016		MW-43S 3/30/2016		MW-43S 10/3/2016		MW-43D 3/30/2016		MW-43D 10/3/2016		MW-44D 3/30/2016		MW-44D 10/3/2016		MW-50S 3/31/2016		MW-50S 10/4/2016		Equipment Blank 3/31/2016		Equipment Blank 10/4/2016	
Analytes (concentration)	I/C VC	SWPC	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL
Total Metals (mg/l)																																
Arsenic	-	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004	0.0157	0.004	0.0088	0.004	BRL	0.004	BRL	0.004	0.0044	0.004	0.0046	0.004	BRL	0.004	BRL	0.004	BRL	0.004	BRL	0.004
Cadmium	-	0.006	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	0.0025	0.0025	0.0029	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025	BRL	0.0025
Chromium	-	0.11	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005	BRL	0.005
Copper	-	0.048	BRL	0.005	BRL	0.005	0.0057	0.005	0.0218	0.005	0.0212	0.005	0.0158	0.005	0.0174	0.005	0.536	0.005	0.473	0.005	0.0346	0.005	0.0268	0.005	0.0056	0.005	0.0065	0.005	BRL	0.005	BRL	0.005
Nickel	-	0.88	BRL	0.005	BRL	0.005	BRL	0.005	0.0268	0.005	0.0296	0.005	0.0134	0.005	0.0122	0.005	0.141	0.005	0.14	0.005	0.0355	0.005	0.0342	0.005	0.0067	0.005	0.0068	0.005	BRL	0.005	BRL	0.005
Zinc	-	0.123	0.0054	0.005	BRL	0.005	0.022	0.005	0.0882	0.005	0.868	0.005	0.0206	0.005	0.0126	0.005	0.49	0.005	0.447	0.005	0.0457	0.005	0.0388	0.005	0.0932	0.005	0.116	0.005	0.0074	0.005	BRL	0.005
Volatile Organic Compounds (µg/l)																																
1,1,2-Trichlorotrifluoroethane (Freon 113)	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Acetone	50,000	-	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10
Acrylonitrile	-	20	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Benzene	530	710	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromochloromethane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromodichloromethane	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Bromoform	3,800	10,800	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromomethane	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
2-Butanone (MEK)	50,000	-	BRL	10	BRL	2	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2
n-Butylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
sec-Butylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
tert-Butylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Carbon disulfide	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Carbon tetrachloride	40	132	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Chlorobenzene	6,150	420,000	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Chloroethane	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Chloroform	710	14,100	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Chloromethane	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
2-Chlorotoluene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
4-Chlorotoluene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dibromo-3-chloropropane	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Dibromochloromethane	-	1,020	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
1,2-Dibromoethane (EDB)	16	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Dibromomethane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dichlorobenzene	50,000	170,000	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3-Dichlorobenzene	50,000	26,000	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,4-Dichlorobenzene	50,000	26,000	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Dichlorodifluoromethane (Freon12)	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
1,1-Dichloroethane	50,000	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dichloroethane	90	2,970	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1-Dichloroethene	6	96	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
cis-1,2-Dichloroethene	-	-	19.3	1	10.5	1	10.2	1	7.6	1	11.4	1	8.3	1	10.1	1	59.6	1	74.3	1	97.7	1	83.9	1	46.3	1	39.9	1	BRL	1	BRL	1
trans-1,2-Dichloroethene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dichloropropane	60	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3-Dichloropropane	-	34,000	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
2,2-Dichloropropane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1-Dichloropropene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
cis-1,3-Dichloropropene	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
trans-1,3-Dichloropropene	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Ethylbenzene	50,000	580,000	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Hexachlorobutadiene	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
2-Hexanone (MBK)	-	-	BRL	10	BRL	2	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2
Isopropylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
4-Isopropyltoluene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Methyl tert-butyl ether	50,000	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
4-Methyl-2-pentanone (MIBK)	50,000	-	BRL	10	BRL	2	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2
Methylene chloride	50,000	48,000	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Naphthalene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
n-Propylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Styrene	2,065	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,1,2-Tetrachloroethane	50	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,2,2-Tetrachloroethane	100	110	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Tetrachloroethene	3,820	88	5.1	1	2.4	1	2.6	1	3.7	1	4.5	1	9	1	9.6	1	23.4	1	21	1	33.4	1	24	1	11.3	1	8.3	1	BRL	1	BRL	1
Toluene	50,000	4,000,000	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,3-Trichlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,4-Trichlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3,5-Trichlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,1-Trichloroethane	50,000	62,000	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,2-Trichloroethane	19,600	1,260	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Trichloroethene	540	2,340	8.5	1	4.6	1	4.7	1	4.6	1	6.1	1	8.6	1	10.1	1	42.2	1	45.6	1	62.5	1	54.2	1	18.6	1	15.2	1	BRL	1	BRL	1
Trichlorofluoromethane (Freon 11)	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,3-Trichloropropane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,4-Trimethylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3,5-Trimethylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Vinyl chloride	2	15,750	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	2.5	1	3.2	1	5.3	1	5.7	1	BRL	1	BRL	1	BRL	1	BRL	1
m,p-Xylene	50,000	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
o-Xylene		-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Tetrahydrofuran	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Ethyl ether	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Tert-amyl methyl ether	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Ethyl tert-butyl ether	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Di-isopropyl ether	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Tert-Butanol / butyl alcohol	-	-	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10
trans-1,4-Dichloro-2-butene	-	-	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5
1,4-Dioxane	-	-	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20
Ethanol	-	-	BRL	400	BRL	200	BRL	200	BRL	400	BRL	200	BRL	400	BRL	200	BRL	400	BRL	200	BRL	400	BRL	200	BRL	400	BRL	200	BRL	400	BRL	200

Notes

1. Groundwater criteria taken from Connecticut Remediation Standard Regulations (RSRs), Section 22a-133k-1 through 22a-133k-3, dated June 26, 2013.
2. SWPC = Surface Water Protection Criteria.
3. I/C VC = Industrial/Commercial Volatilization Criteria.
4. - indicates RSR standard not established.
5. RDL = Reportable Detection Limit
6. BRL = Below Reporting Limit
7. NT = Not Tested
8. Blue indicates RDL above RSR criteria.
9. Red indicates concentration exceeds RSR criteria.
10. Chromium SWPC indicates hexavalent chromium.
12. Green shading indicates concentration has been qualified as estimated, non-detect due to detections in laboratory method and/or equipment blank.

TABLE 5
STABILIZED AND/OR FINAL GEOCHEMICAL FIELD PARAMETERS
March and October 2016

Envirite Facility
Old Waterbury Rd, Thomaston, CT
Ramboll Environ Project No. 08-14218I

Groundwater Monitoring Well	Discrete Interval Specs: Screen Intervals (feet BGS) Top Depth	Bottom Depth	Date	Field Geochemical Parameters: Flow Rate (mL/min)	Depth to Water (feet TOC)	pH (SU)	Temp. (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)
MW-30	38.0	48.0	March	30	17.26	5.06	21.87	3407	0.94	187.0	4.71
			October	30	18.40	6.39	17.65	2957	0.26	171.1	0.80
MW-31S	17.0	27.0	March	60	17.30	6.10	13.44	1417	0.18	-20.5	8.01
			October	60	19.30	5.93	16.35	848	0.19	-138.0	24.86
MW-31D	26.5	31.5		-	-	-	-	-	-	-	-
MW-31B	37.0	47.0		-	-	-	-	-	-	-	-
MW-32S	14.0	24.0		-	-	-	-	-	-	-	-
MW-32D	24.5	39.5		-	-	-	-	-	-	-	-
MW-33	15.0	25.0		-	-	-	-	-	-	-	-
MW-36	21.5	31.5		-	-	-	-	-	-	-	-
MW-37D	27.0	32.0		-	-	-	-	-	-	-	-
MW-37B	55.7	65.7		-	-	-	-	-	-	-	-
MW-41S	10.0	20.0	March	160	12.05	5.97	11.76	329	1.93	215.9	0.36
			October	300	12.85	4.68	12.83	324	0.36	247.6	0.13
MW-41D	17.0	32.0	March	160	11.55	6.15	12.30	468	0.14	351.0	0.00
			October	320	12.48	5.90	11.90	320	0.41	177.6	0.00
MW-41B	45.0	55.0		-	-	-	-	-	-	-	-
MW-42S	22.5	32.5	March	200	18.92	6.18	12.41	538	4.44	153.1	2.38
			October	240	19.65	5.93	13.20	515	1.17	174.6	0.00
MW-42B	65.0	75.0		-	-	-	-	-	-	-	-
MW-43S	22.5	32.5	March	200	18.21	6.02	11.98	1235	2.01	57.7	1.22
			October	200	18.95	6.10	12.85	1030	0.13	188.4	1.77
MW-43D	58.0	68.0	March	160	18.50	5.33	11.92	1222	0.35	180.0	1.37
			October	160	19.20	5.27	13.27	1304	1.00	240.6	4.80
MW-44S	17.0	27.0		-	-	-	-	-	-	-	-
MW-44D	62.0	72.0	March	160	17.05	6.07	9.61	2028	0.25	403.7	0.00
			October	60	17.72	5.96	12.50	1444	0.60	167.4	2.00
MW-44B	75.0	85.0		-	-	-	-	-	-	-	-
MW-50S	13.7	18.7	March	160	13.42	5.08	11.47	1084	0.17	441.8	3.86
			October	100	14.21	4.95	15.67	907	0.38	261.2	0.12
MW-51D	18.3	28.3	March	200	16.47	6.03	11.98	1209	0.28	126.5	0.19
			October	200	17.65	5.96	18.12	1056	0.19	193.4	1.18
MW-51B	38.5	48.5		-	-	-	-	-	-	-	-
MW-52D	43.5	58.5		-	-	-	-	-	-	-	-
MW-53D	25.0	40.0	March	160	15.24	6.05	13.04	936	0.57	416.00	0.00
			October	120	15.95	6.06	13.75	1495	0.31	208.40	1.19
MW-55B	15.0	25.0		-	-	-	-	-	-	-	-
MW-56S	7.0	12.0		-	-	-	-	-	-	-	-
MW-56D	49.0	54.0		-	-	-	-	-	-	-	-
MW-57	7.0	12.0		-	-	-	-	-	-	-	-
MW-58S	6.0	11.0		-	-	-	-	-	-	-	-
MW-58D	68.5	75.1		-	-	-	-	-	-	-	-
MW-59S	5.0	15.0		-	-	-	-	-	-	-	-
MW-59D	40.0	50.0		-	-	-	-	-	-	-	-
MW-60	4.0	14.0		-	-	-	-	-	-	-	-
MW-61S	14.0	20.0		-	-	-	-	-	-	-	-
MW-61D	42.0	52.0		-	-	-	-	-	-	-	-
MW-61B	59.0	69.0		-	-	-	-	-	-	-	-
MW-62	19.0	21.0		-	-	-	-	-	-	-	-
MW-62B	26.0	36.0		-	-	-	-	-	-	-	-
MW-63	14.5	24.5		-	-	-	-	-	-	-	-

Notes:
1. BGS refers to below ground surface.
2. Well installation depths expressed in feet relative to ground surface.
3. feet TOC indicates measurements are expressed in feet below the top of the steel well casing.
4. - indicates not measured.

TABLE 7

Surface Water Quality Data
March and October 2016

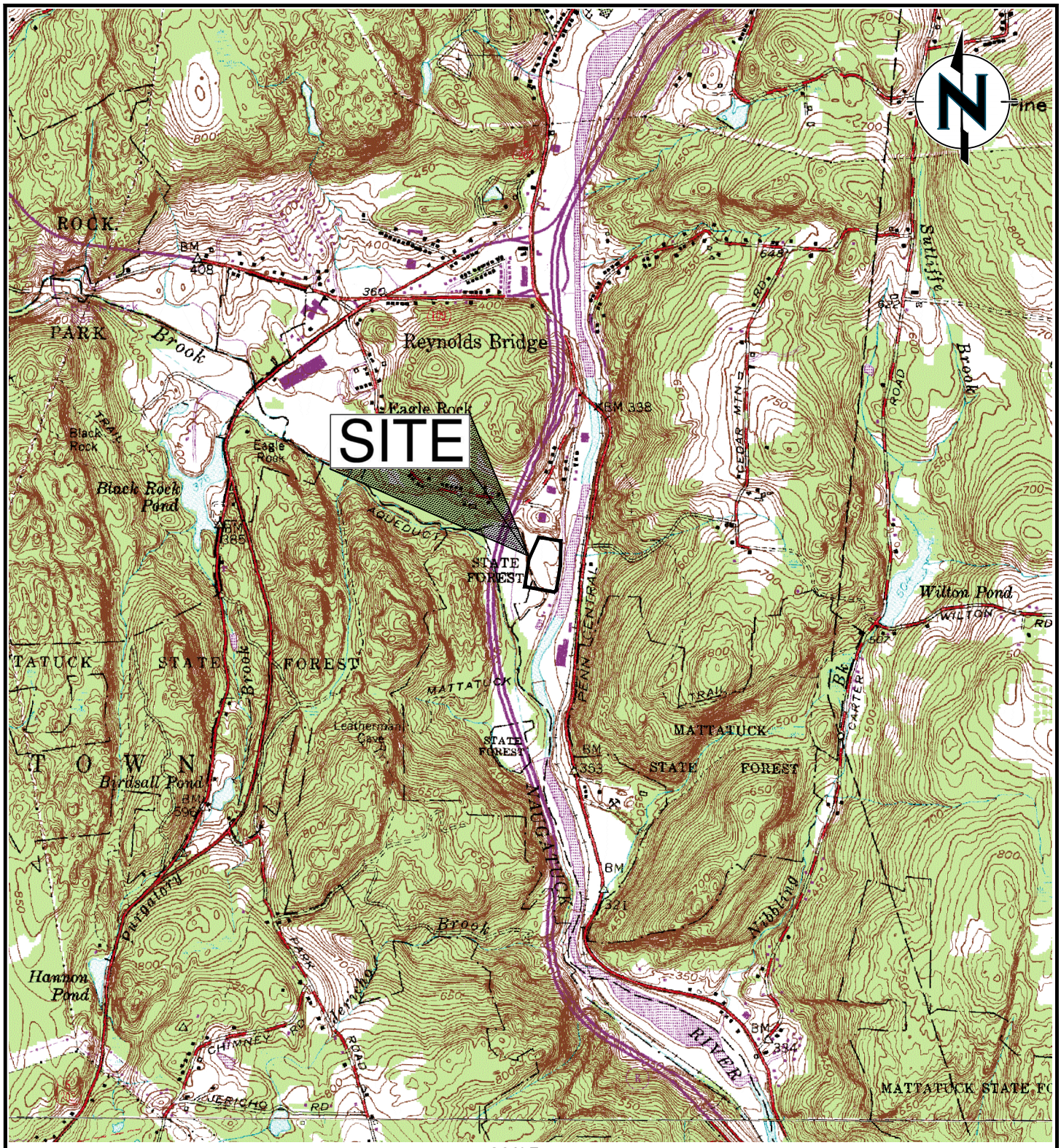
Envirite RCRA Landfill
Old Waterbury Road, Thomaston, CT

			Naugatuck River												Branch Brook								QA/QC							
			SW-NR-1 3/30/2016		SW-NR-1 (DUP) 3/30/2016		SW-NR-1 10/3/2016		SW-NR-1 (DUP) 10/3/2016		SW-NR-2 3/30/2016		SW-NR-2 10/3/2016		SW-BB-1 3/30/2016		SW-BB-1 10/3/2016		SW-BB-2 3/30/2016		SW-BB-2 10/3/2016		Trip Blank 3/30/2016		Trip Blank 10/3/2016		Equipment Blank 3/30/2016		Equipment Blank 10/3/2016	
Analytes	Freshwater Aquatic Life Criteria																													
(concentrations)	Acute	Chronic	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Result	RDL	Results	RDL	Results	RDL	Results	RDL	Results	RDL
Total Metals (mg/l)																														
Arsenic	0.34	0.15	BRL	0.00002	BRL	0.00002	BRL	0.00055	BRL	0.00055	BRL	0.00025	BRL	0.00055	BRL	0.00025	BRL	0.00055	0.00002	0.00025	BRL	0.00055	NT	NT	NT	NT	BRL	0.0005	BRL	0.00055
Cadmium	0.001	0.000125	0.00005	0.00025	0.00005	0.00025	0.00007	0.00025	0.00007	0.00025	0.00005	0.00025	0.00006	0.00025	0.00002	0.00025	0.00004	0.00025	0.00002	0.00025	0.00007	0.00025	NT	NT	NT	NT	BRL	0.00025	0.00002	0.00025
Copper	0.0143	0.0048	0.00136	0.00025	0.00153	0.00025	BRL	0.0044	BRL	0.0044	0.00148	0.00025	BRL	0.0044	0.00081	0.00025	BRL	0.0044	0.00079	0.00025	BRL	0.0044	NT	NT	NT	NT	0.00034	0.00025	BRL	0.0044
Zinc	0.065	0.065	0.008	0.0087	0.00867	0.0087	BRL	0.005	BRL	0.005	0.00844	0.0087	BRL	0.005	0.0059	0.0087	BRL	0.005	0.00613	0.0087	BRL	0.005	NT	NT	NT	NT	0.00239	0.0087	BRL	0.005
Volatile Organic Compounds (µg/l)																														
1,1,2-Trichlorotrifluoroethane (Freon 113)	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Acetone	-	-	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10
Acrylonitrile	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Benzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromochloromethane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromodichloromethane	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Bromoform	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Bromomethane	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
2-Butanone (MEK)	-	-	BRL	10	BRL	10	BRL	2	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2
n-Butylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
sec-Butylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
tert-Butylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Carbon disulfide	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Carbon tetrachloride	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Chlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Chloroethane	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Chloroform	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Chloromethane	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
2-Chlorotoluene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
4-Chlorotoluene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dibromo-3-chloropropane	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Dibromochloromethane	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
1,2-Dibromoethane (EDB)	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Dibromomethane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dichlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3-Dichlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,4-Dichlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Dichlorodifluoromethane (Freon12)	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
1,1-Dichloroethane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dichloroethane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1-Dichloroethene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
cis-1,2-Dichloroethene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
trans-1,2-Dichloroethene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2-Dichloropropane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3-Dichloropropane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
2,2-Dichloropropane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1-Dichloropropene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
cis-1,3-Dichloropropene	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
trans-1,3-Dichloropropene	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Ethylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Hexachlorobutadiene	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
2-Hexanone (MBK)	-	-	BRL	10	BRL	10	BRL	2	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2
Isopropylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
4-Isopropyltoluene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Methyl tert-butyl ether	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
4-Methyl-2-pentanone (MIBK)	-	-	BRL	10	BRL	10	BRL	2	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2	BRL	10	BRL	2
Methylene chloride	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Naphthalene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
n-Propylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Styrene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,1,2-Tetrachloroethane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,2,2-Tetrachloroethane	-	-	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5	BRL	0.5
Tetrachloroethene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Toluene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,3-Trichlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,4-Trichlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3,5-Trichlorobenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,1-Trichloroethane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,1,2-Trichloroethane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Trichloroethene	-	-	BRL	1	1	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Trichlorofluoromethane (Freon 11)	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,3-Trichloropropane	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,2,4-Trimethylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
1,3,5-Trimethylbenzene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Vinyl chloride	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
m,p-Xylene	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
o-Xylene	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Tetrahydrofuran	-	-	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2	BRL	2
Ethyl ether	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Tert-amyl methyl ether	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Ethyl tert-butyl ether	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Di-isopropyl ether	-	-	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1	BRL	1
Tert-Butanol / butyl alcohol	-	-	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10	BRL	10
trans-1,4-Dichloro-2-butene	-	-	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5	BRL	5
1,4-Dioxane	-	-	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20	BRL	20
Ethanol	-	-	BRL	400	BRL	400	BRL	200	BRL	200	BRL	400	BRL	200	BRL	400	BRL	200	BRL	400	BRL	200	BRL	400	BRL	200	BRL	400	BRL	200

Notes

1. Freshwater aquatic life criteria taken from Connecticut Remediation Standard Regulations (RSRs), Section 22a-426-1 through 22a-426-9, dated October 10, 2013.
2. - indicates RSR standard not established.
3. RDL = Reportable Detection Limit
4. BRL = Below Reporting Limit
5. NT = Not Tested
6. Blue indicates RDL above RSR criteria.
7. Red indicates concentration exceeds RSR criteria.
8. Indicates estimated concentration (J Flag) between the Method Detection Limit (MDL) and Reportable Detection Limit (RDL).
9. Green shading indicates concentration has been qualified as estimated, non-detect due to detections in laboratory method and/or equipment blank.

FIGURES



SCALE 1:24000

0 0.5 1 Kilometers

0 1/2 1 Miles

2000 0 2000 4000 Feet

SOURCE: U.S. Geological Survey 7.5 minute (topographic) quadrangles; Thomaston, and Waterbury, Connecticut.

RAMBOLL ENVIRON

DRAFTED BY: \GMILES

DATE: 5/16/2013

Site Location Map

Envirite RCRA Landfill

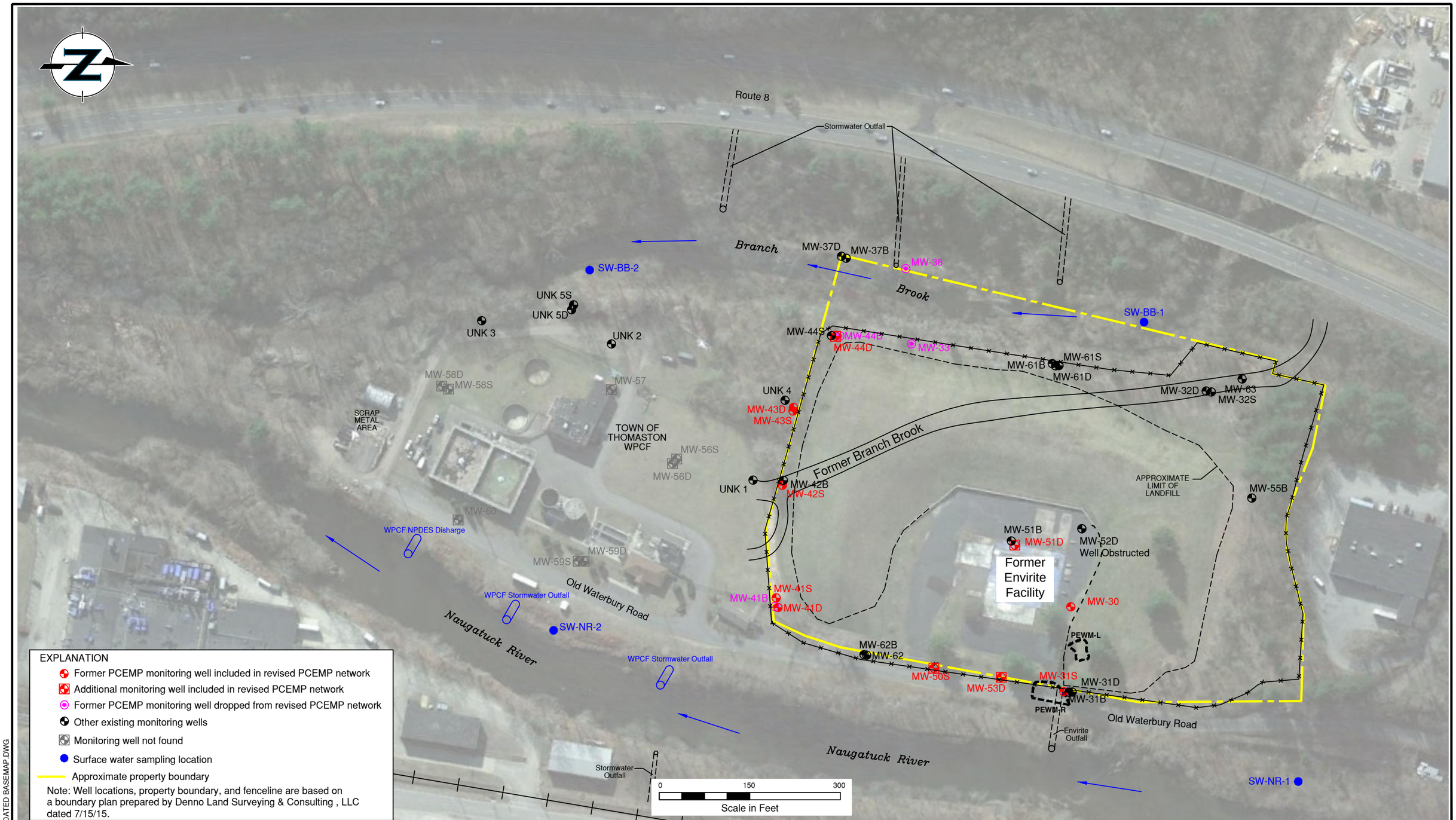
Old Waterbury Road, Thomaston, CT

Figure

1

PROJECT: 08-14218F

C:\PROJECTS\08-14218F\SLM THOMASTON CT.DWG



C:\PROJECTS\08-14218H\UPDATED BASEMAP.DWG

RAMBOLL ENVIRON

DRAFTED BY: \GMILES

DATE: 12/1/2015

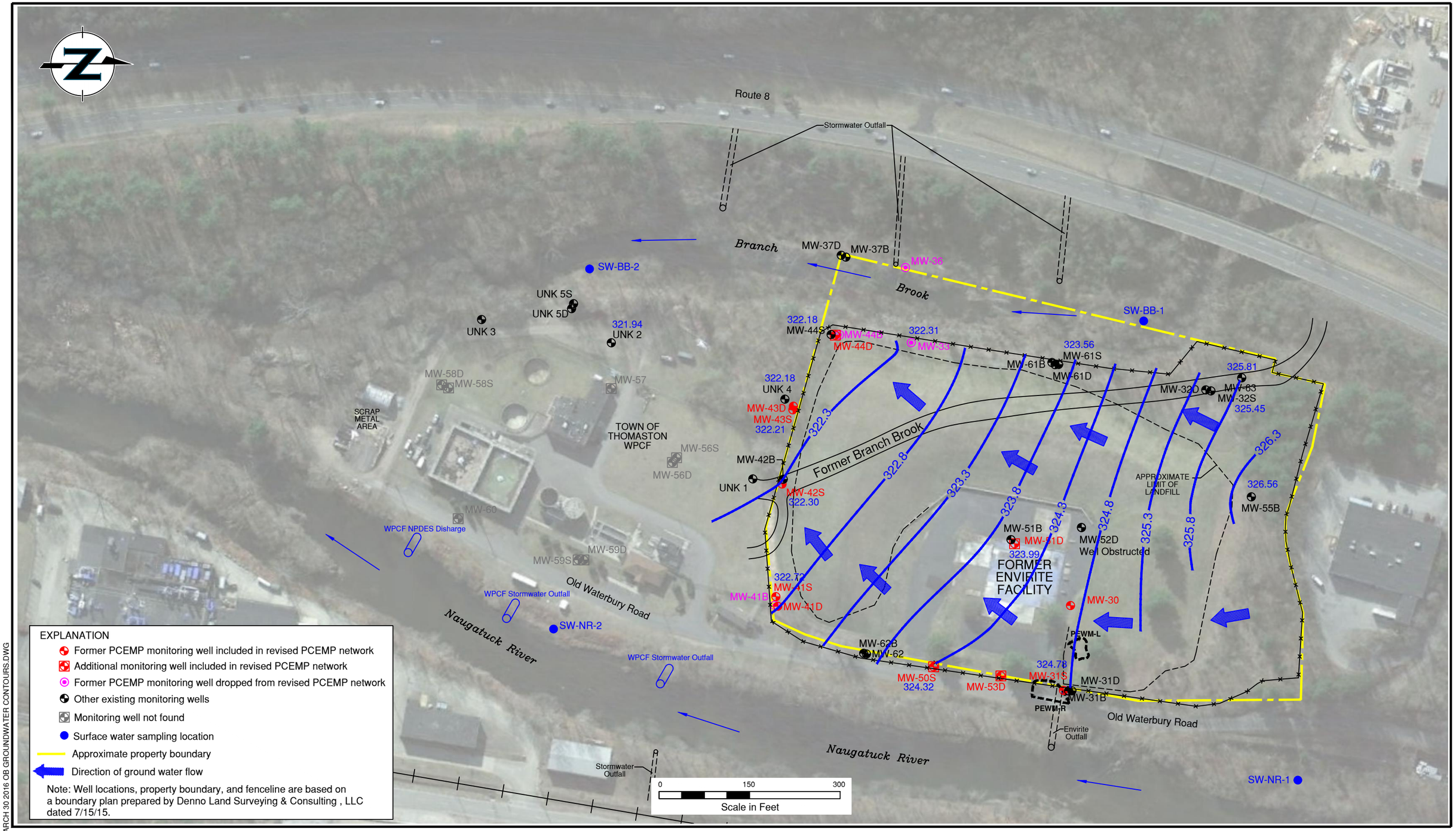
Environmental Monitoring Locations Site Plan

Envirite RCRA Facility

Old Waterbury Road, Thomaston, Connecticut

Figure

2



F:\GRAEME\08-14218H\MARCH 30 2016 OB GROUNDWATER CONTOURS.DWG

RAMBOLL ENVIRON

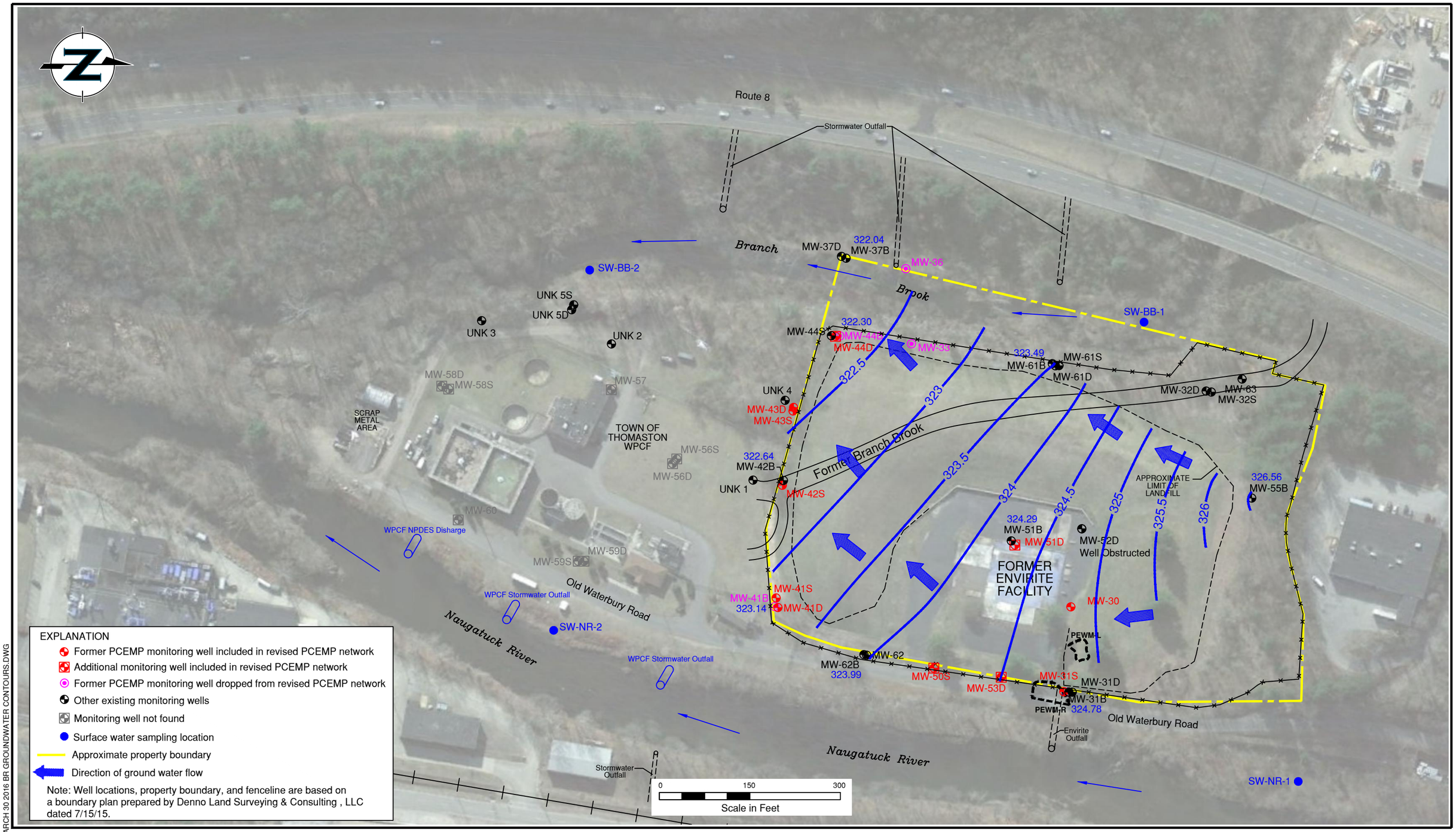
DRAFTED BY: \CADBIN | DATE: 4/20/2016

Environmental Monitoring Locations Site Plan
March 30, 2016 Overburden Groundwater Elevation Contours

Envirite RCRA Facility

Old Waterbury Road, Thomaston, Connecticut

Figure
3-1



F:\GRAEME\08-14218H\MARCH 30 2016 BR GROUNDWATER CONTOURS.DWG

RAMBOLL ENVIRON

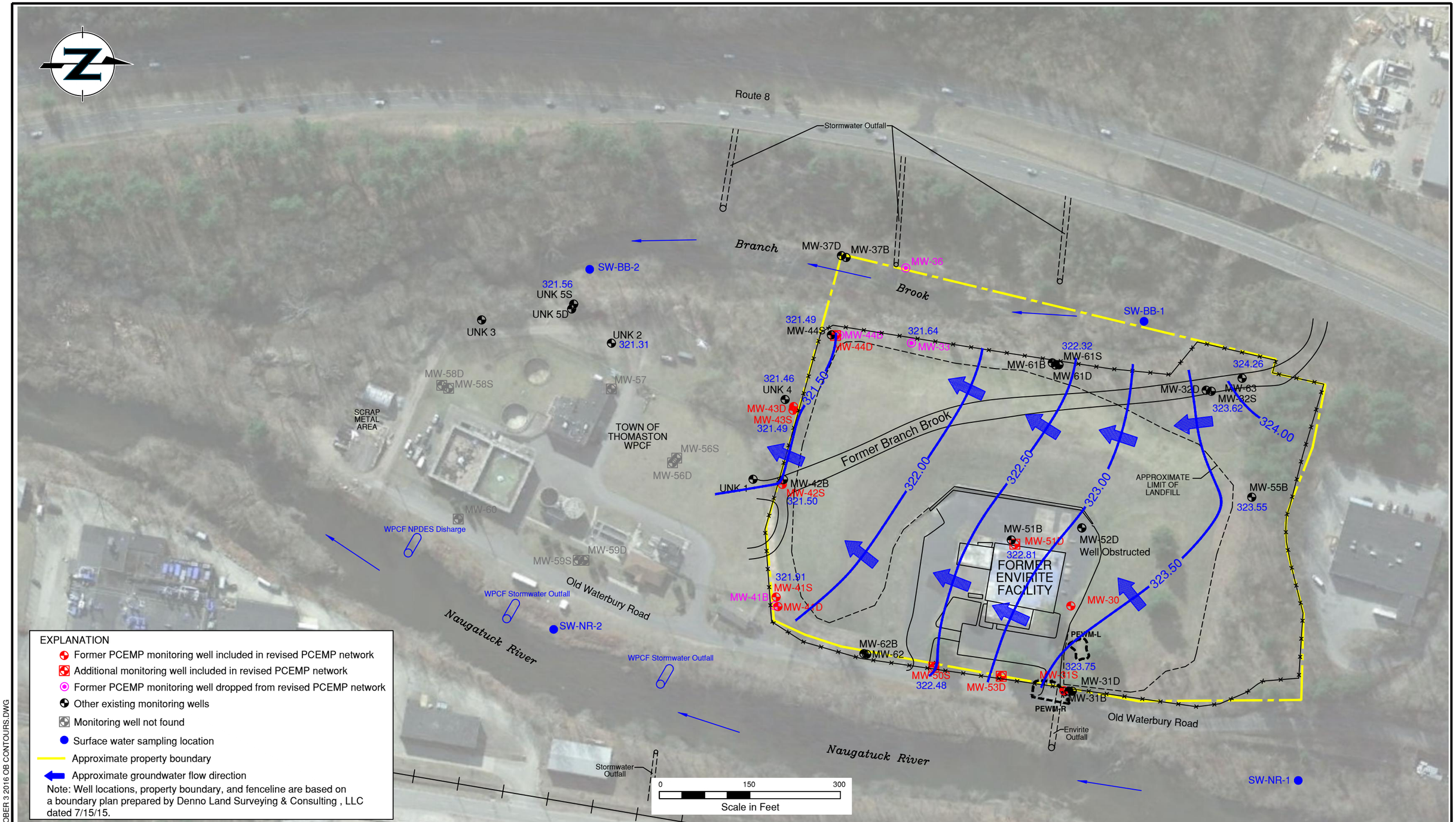
DRAFTED BY: \GMILES | DATE: 5/23/2016

Environmental Monitoring Locations Site Plan
March 30, 2016 Bedrock Groundwater Elevation Contours

Envirite RCRA Facility

Old Waterbury Road, Thomaston, Connecticut

Figure
3-2



F:\GRAEME\08-14218H\OCTOBER 3 2016 OB CONTOURS.DWG

RAMBOLL ENVIRON

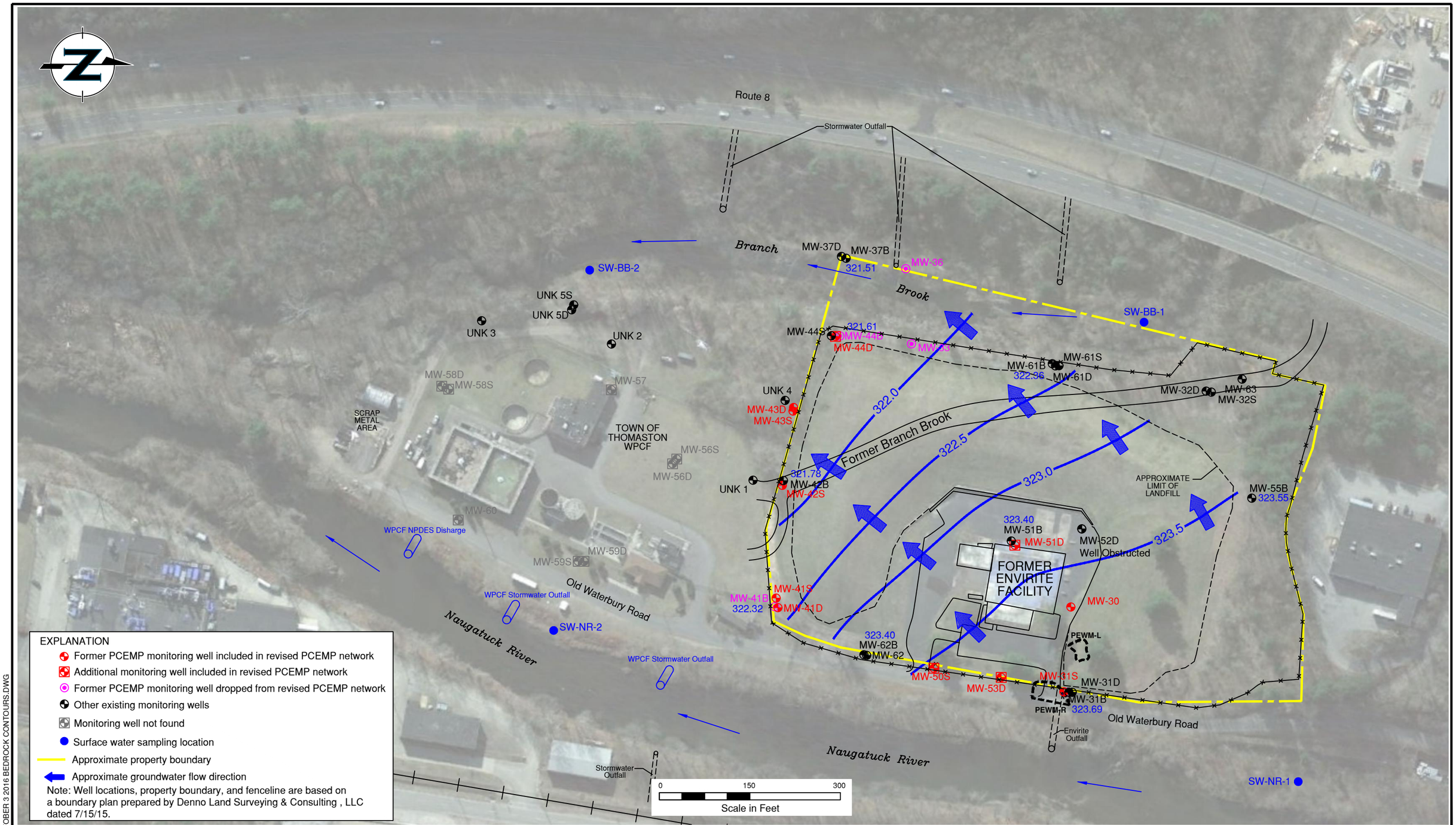
DRAFTED BY: \GMILES | DATE: 10/25/2016

Environmental Monitoring Locations Site Plan
October 3, 2016 Overburden Groundwater Contours

Envirite RCRA Facility

Old Waterbury Road, Thomaston, Connecticut

Figure
3-3



F:\GRAEME\08-14218H\OCTOBER 3 2016 BEDROCK CONTOURS.DWG

RAMBOLL ENVIRON

DRAFTED BY: \GMILES

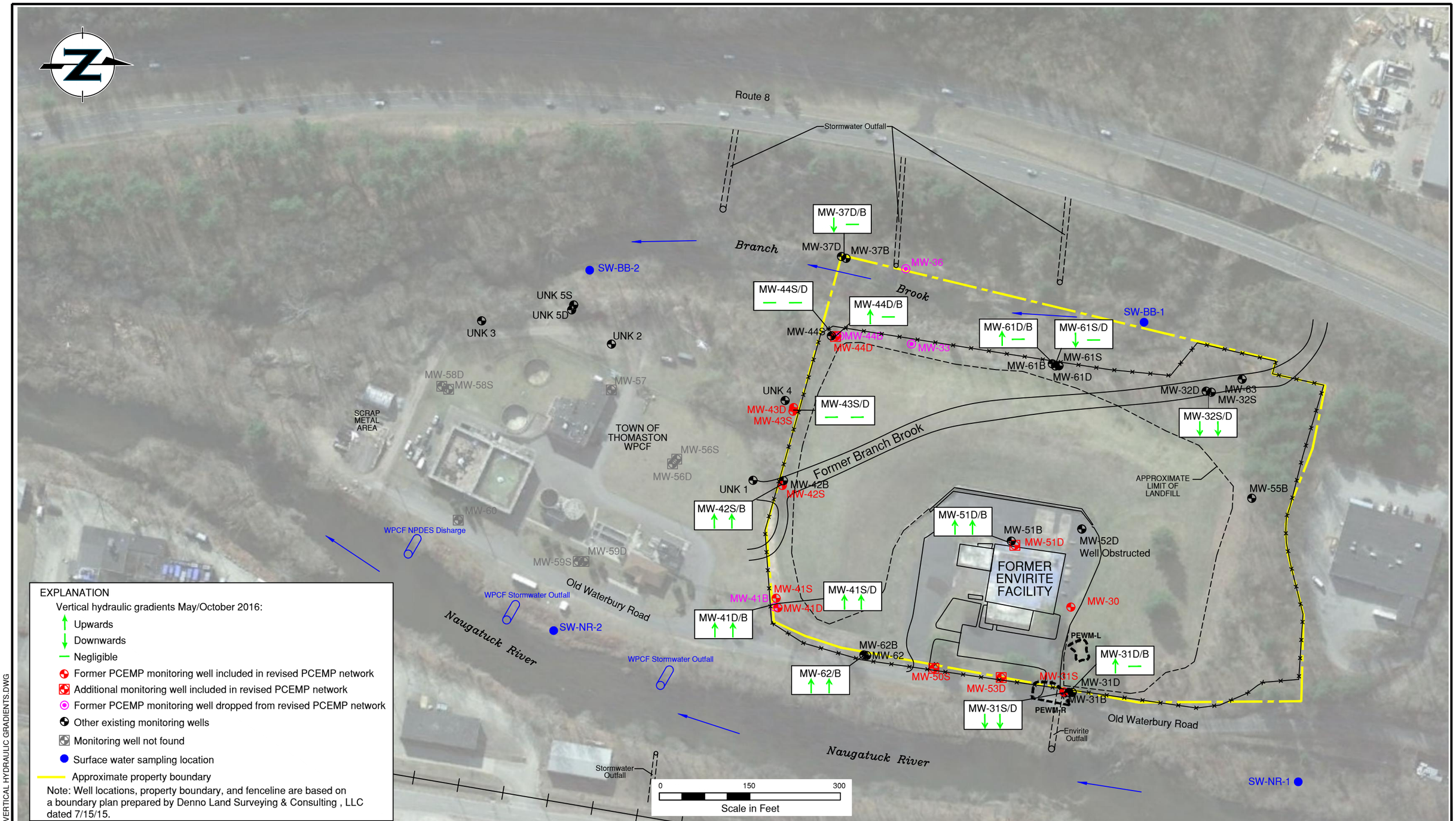
DATE: 10/25/2016

Environmental Monitoring Locations Site Plan
October 3, 2016 Bedrock Groundwater Elevation Contours

Envirite RCRA Facility

Old Waterbury Road, Thomaston, Connecticut

Figure
3-4



F:\GRAEME\08-14218H\2016 VERTICAL HYDRAULIC GRADIENTS.DWG

RAMBOLL ENVIRON

DRAFTED BY: \GMILES

DATE: 12/19/2016

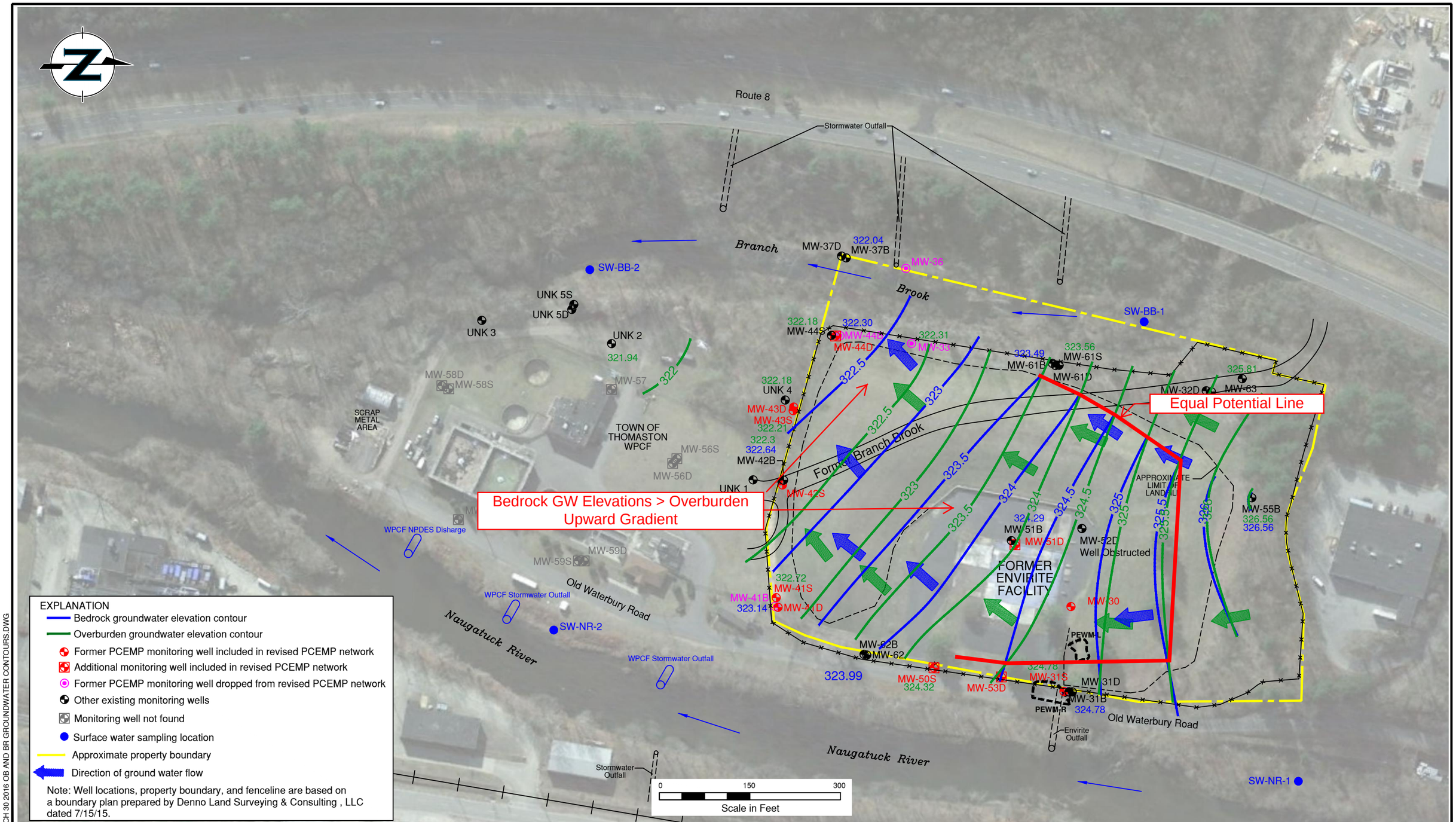
2016 Vertical Hydraulic Gradients

Envirite RCRA Facility

Old Waterbury Road, Thomaston, Connecticut

Figure

3-5



F:\GRAEME\08-1421BH\MARCH 30 2016 OB AND BR GROUNDWATER CONTOURS.DWG

RAMBOLL ENVIRON

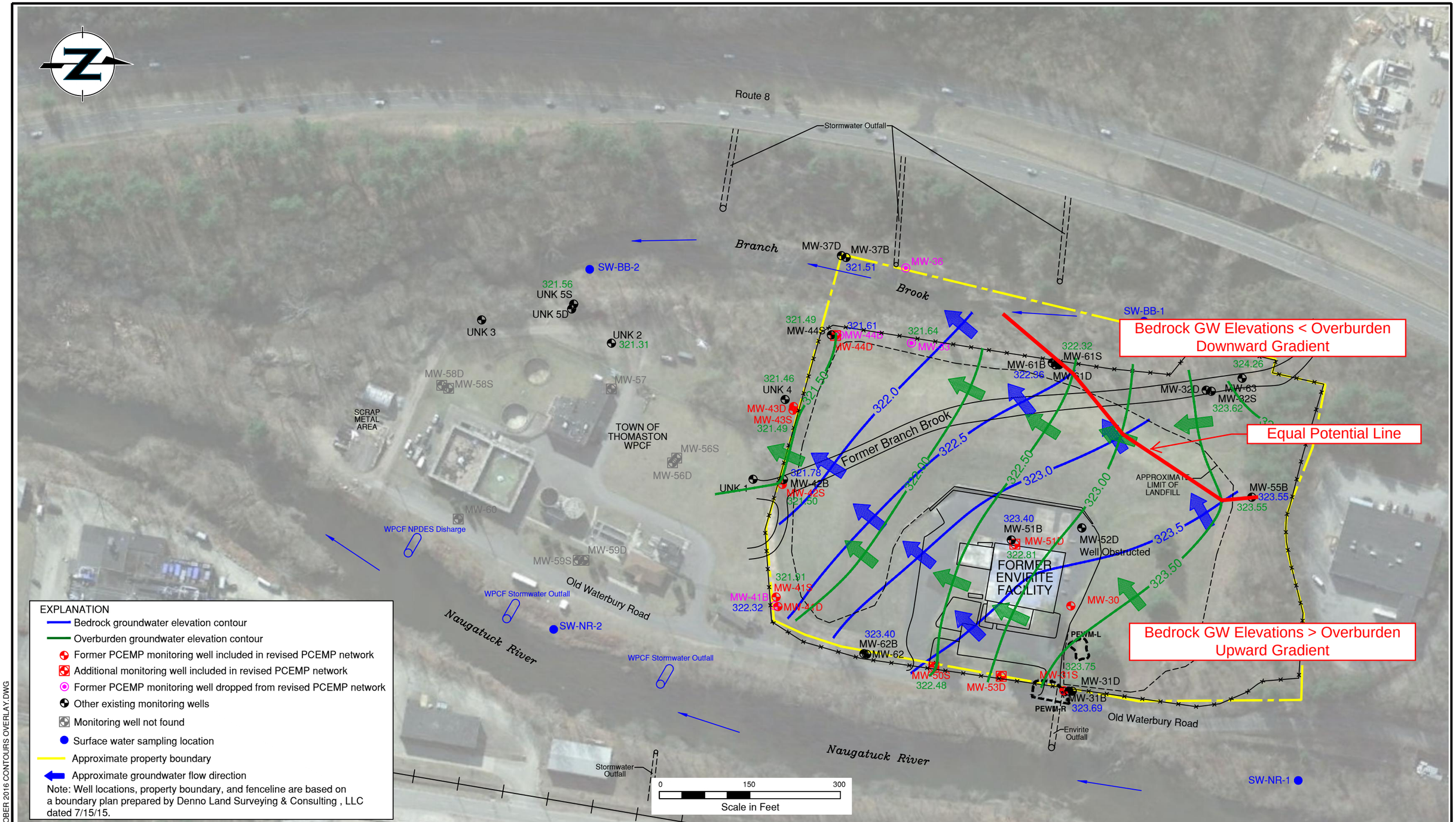
DRAFTED BY: \GMILES | DATE: 1/31/2017

Environmental Monitoring Locations Site Plan
March 30, 2016 Overburden and Bedrock Groundwater Elevation Contours

Envirite RCRA Facility

Old Waterbury Road, Thomaston, Connecticut

Figure
3-6



F:\GRAEME\08-14218H\OCTOBER 2016 CONTOURS OVERLAY.DWG

RAMBOLL ENVIRON

DRAFTED BY: \GMILES | DATE: 12/8/2016

Environmental Monitoring Locations Site Plan
October 3, 2016 Groundwater Elevation Contours

Envirite RCRA Facility

Old Waterbury Road, Thomaston, Connecticut

Figure
3-7

FIGURE 4-1
Copper Concentration Trends

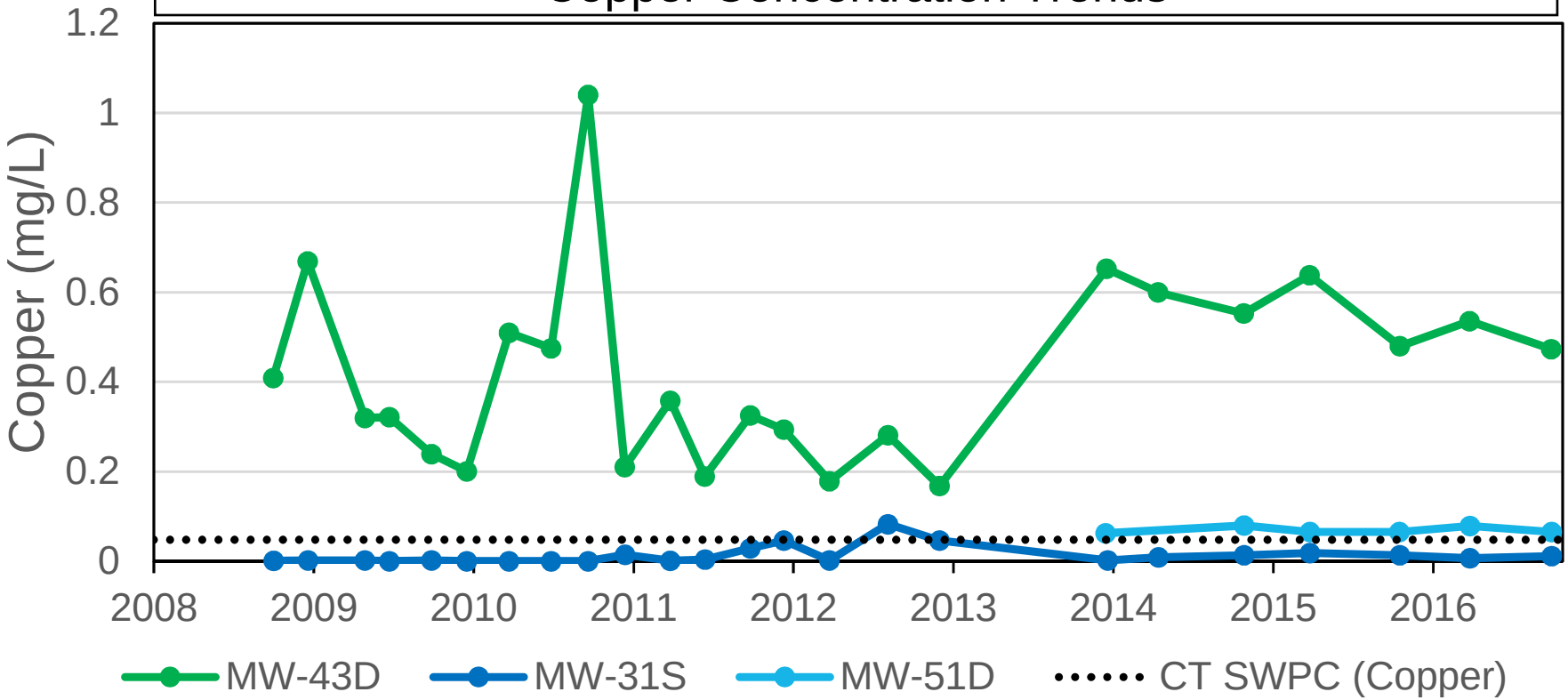


FIGURE 4-2
Zinc Concentration Trends

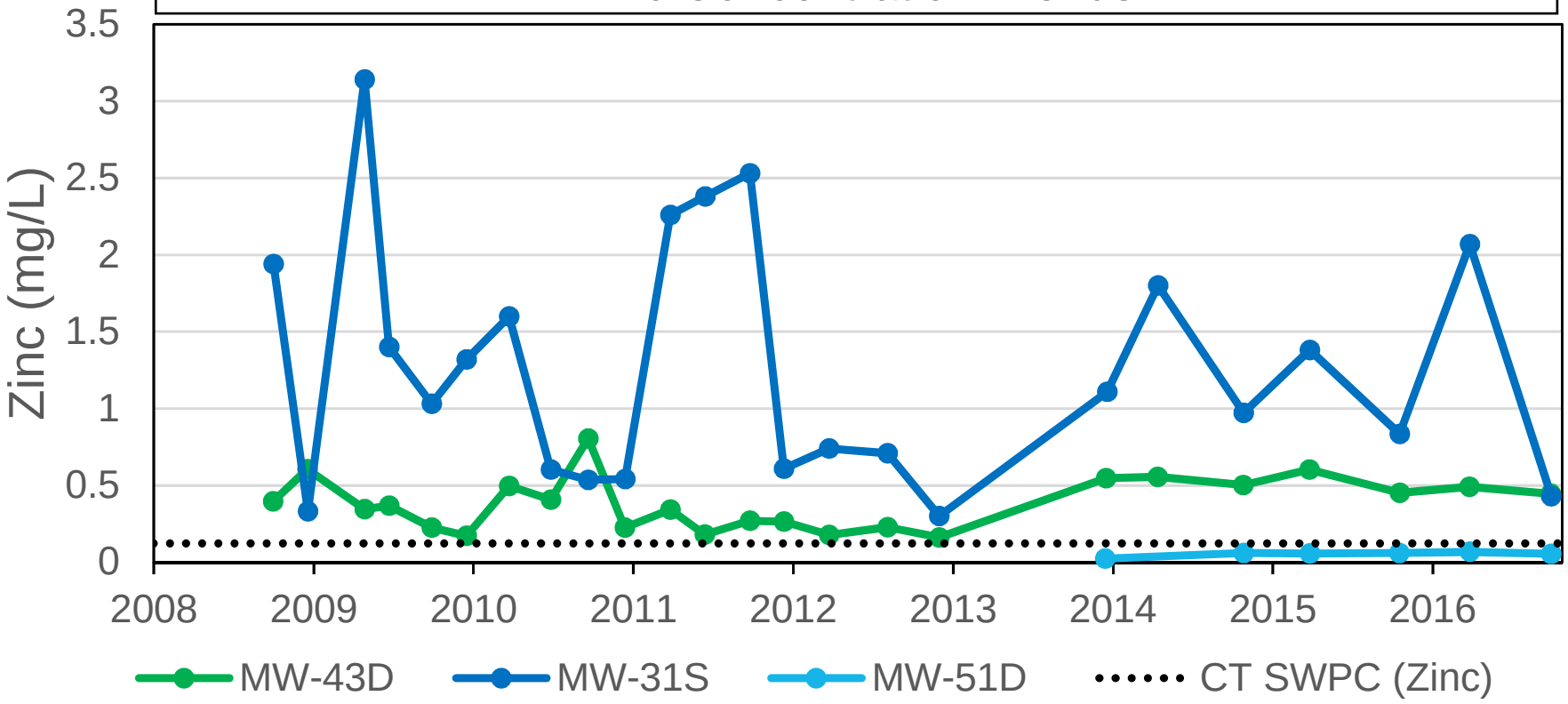


FIGURE 4-3
Vinyl Chloride Concentration Trends

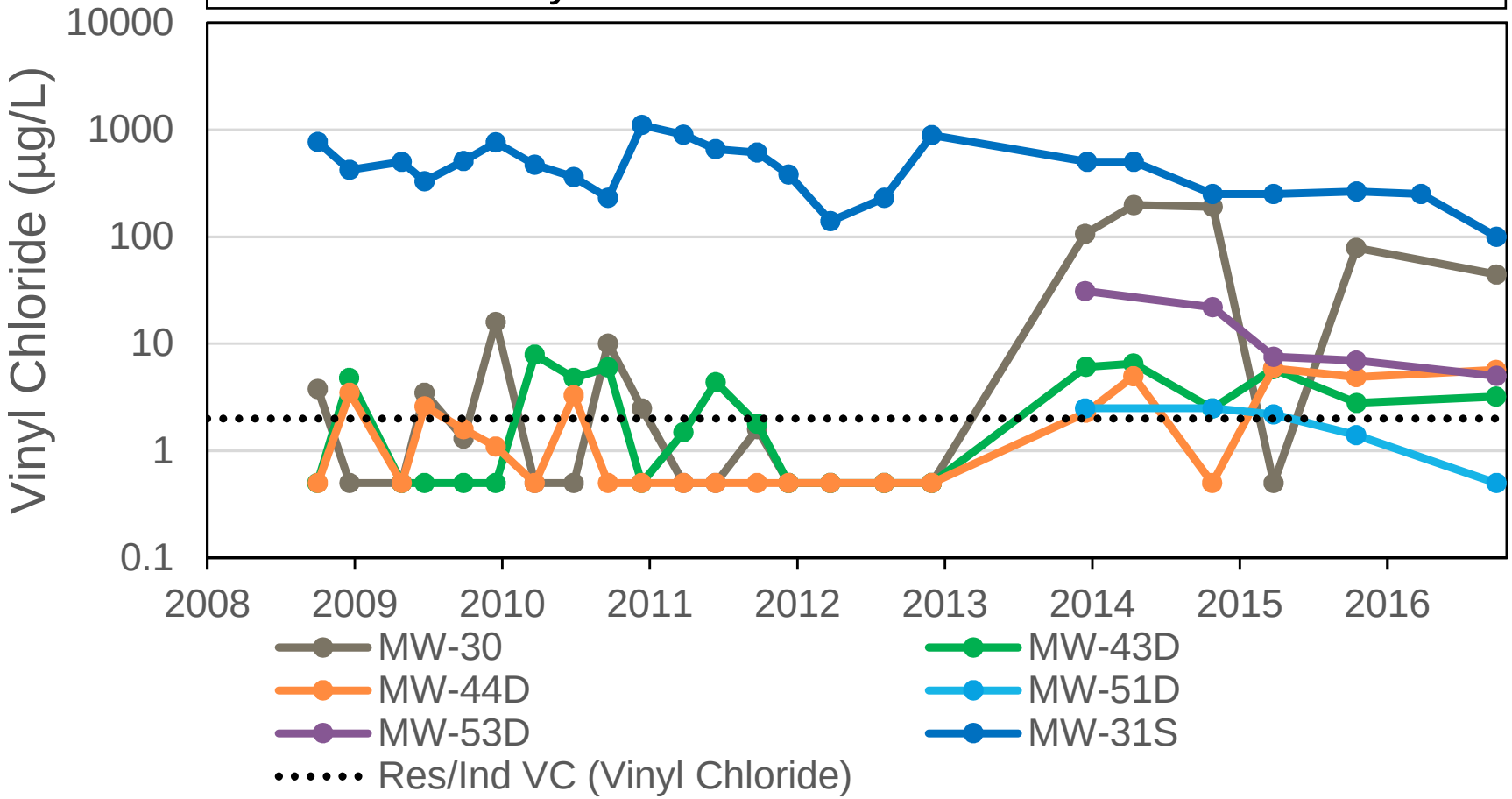


FIGURE 4-4
PCE Concentration Trends

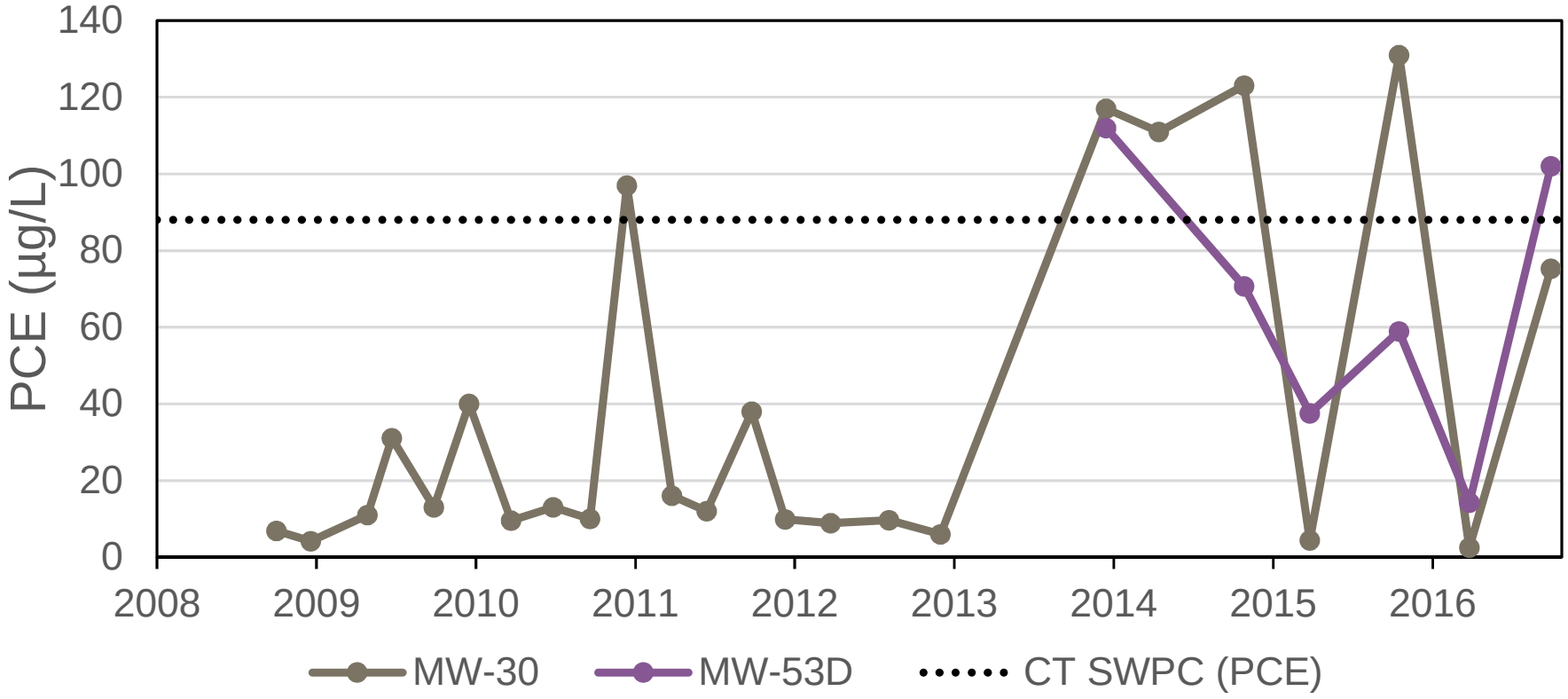


FIGURE 4-5
Chromium Concentration Trends

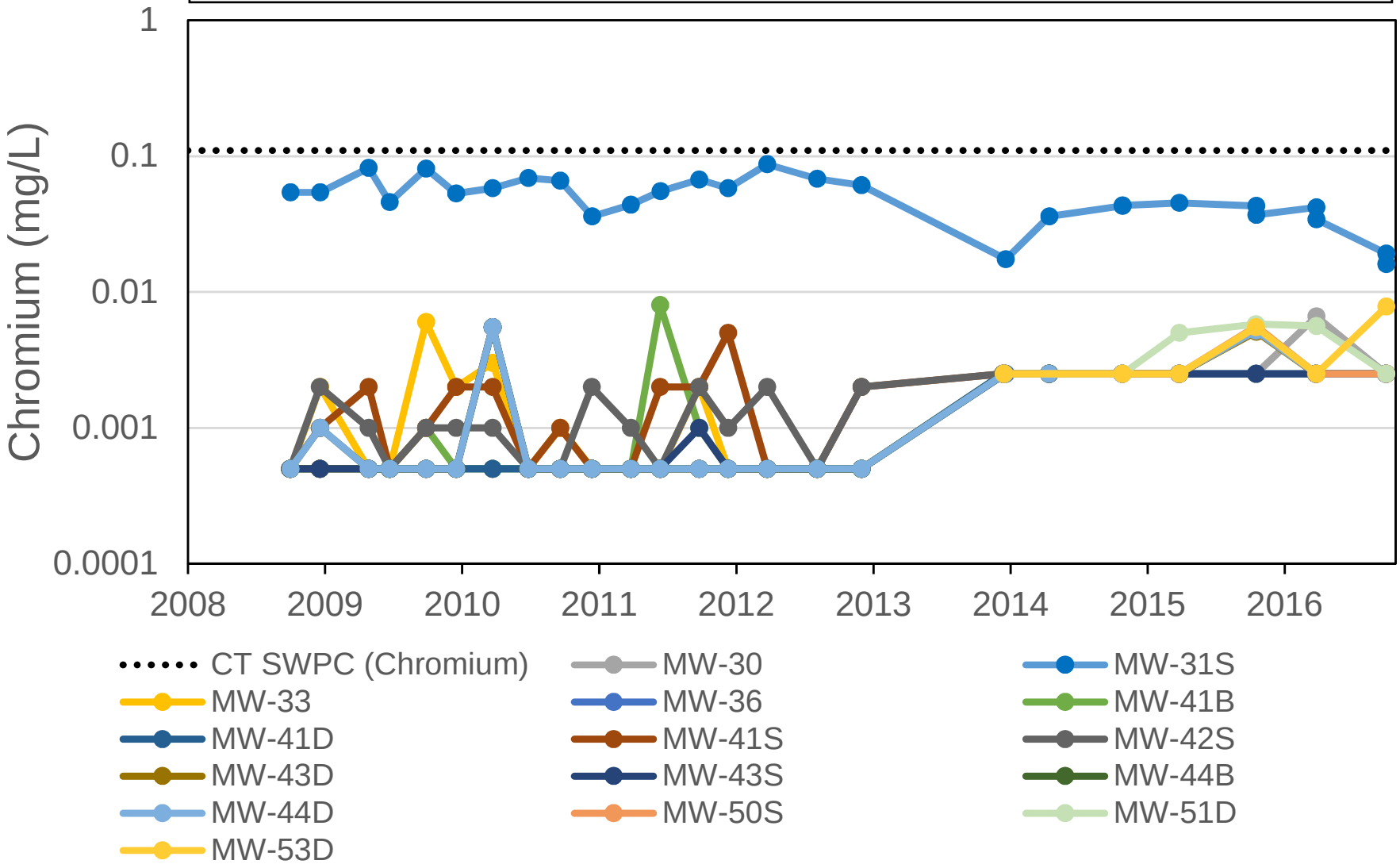
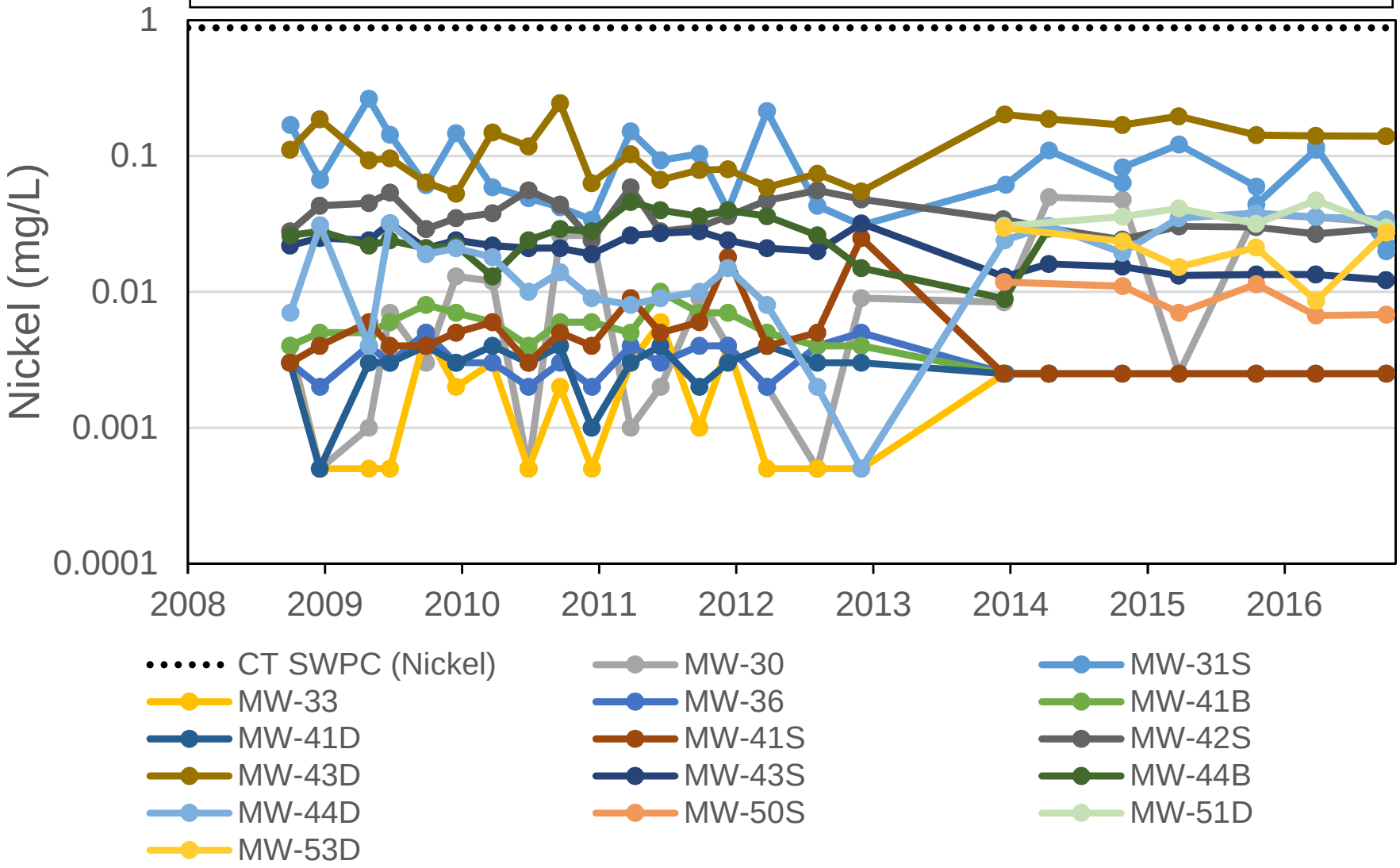


FIGURE 4-6
Nickel Concentration Trends



APPENDIX A
FIELD NOTES, GROUNDWATER ELEVATION GAUGING FORM, EQUIPMENT CALIBRATION LOGS, AND LOW-FLOW GROUNDWATER SAMPLING FIELD FORMS

ENVIRON
100 Pearl Street, East Tower, Third Floor, Hartford, Connecticut 06103
Tel: +1 860 503 1660 Fax: +1 860 241 0620
environcorp.com

Envirite RCRA Landfill Thomaston, CT
Case Name

10/3/16
Date

08-14218 I
Case #

☐ Phone Call ☐ Meeting ☒ Work ☐ Other

Luke Chmielecki, Dale Cross
ENVIRON Staff Member

SWS and GWS
Subject

Other Parties

0730 on site. Calibrated equipment. Cloudy 70°F.
Luke and Dale discuss HASP. Focus on water safety and PPE.
Dale starts opening wells to let them breath before waterlevels.
Luke starts surfacewater sampling. Check-in at POTW.
Duplicate taken at SW-NR-1.
1235 Waterlevels done. 1245 Surfacewaters done.
Dale starts at MW-44D.
Luke starts at MW-43 couplet.
Dale moves to MW-42S.
Clean-up. Offsite 1630.

LC

GROUNDWATER GAUGING FORM

SITE: ENVIRITE RCRA Landfill

LOCATION: Old Waterbury Road, Thomaston, CT

DATE: 10/3/16

PERSONNEL: Luke C., Dale C.

Well	Screened Interval (feet bgs)	Type	Time	Depth to Water (ft BTOC)	Total Depth (ft BGS)	Stickup (feet)	Comments
MW-30	38 - 48	OB		18.40			
MW-31S	17 – 27	OB	12:32	16.59			Obstruction at 7.80'
MW-31D	26.5 – 31.5	OB	12:35	18.13			
MW-31B	37 - 47	BR	12:32	18.10			
MW-32S	14 - 24	OB	09:40	17.09			
MW-32D	24.5 - 39.5	OB	09:42	17.03			
MW-33	15 - 25	OB	10:08	18.13			
MW-36	21.5 - 31.5	OB		7.15			Tubing and bailer wedged in well/Could not remove
MW-37D	27 - 32	OB		6.04			Mislabelled in the field as MW-37B
MW-37B	55.7 - 65.7	BR		HC ~~6.04~~	~~6.0~~ 5.88		Mislabelled in the field as MW-37D
MW-41S	10 - 20	OB	11:32	12.82			
MW-41D	17 - 32	OB	11:35	12.31			
MW-41B	45 - 55	BR	11:39	12.29			
MW-42S	22.5 – 32.5	OB	11:15	19.66			
MW-42B	65 - 75	BR	11:06	20.37			
MW-43S	22.5 – 32.5	OB	10:57	18.92			
MW-43D	58 - 68	OB	10:43	17.10			
MW-44S	17 - 27	OB	10:23	17.14			
MW-44D	62 - 72	OB	10:20	17.70			
MW-44B	75 - 85	BR	10:17	18.68			Hitting something at 18.75'
MW-50S	13.7 – 18.7	OB	12:05	15.21			
MW-51D	18.3 - 28.3	OB	12:20	17.60			
MW-51B	38.5 - 48.5	BR	12:17	16.87			
MW-52D	43.5 - 58.5	OB					Bailer and tubing wedged in well.
MW-53D	25 - 40	OB	12:10	16.14			
MW-55B	15 - 25	BR	09:00	17.73			
MW-56S	7 - 12	OB					Well located off Site on POTW property. Never found.
MW-56D	49 - 54	OB					Well located off Site on POTW property. Never found.
MW-57	7 - 12	OB					Well located off Site on POTW property. Never found.
MW-58S	6 - 11	OB					Well located off Site on POTW property. Never found.
MW-58D	68.5 - 75.1	OB					Well located off Site on POTW property. Never found.
MW-59S	5 - 15	OB					Well located off Site in Roadway. Never found.
MW-59D	40 - 50	OB					Well located off Site in Roadway. Never found.
MW-60	4 - 14	OB					Well located off Site in Roadway. Never found.
MW-61S	14 - 20	OB	09:49	17.03			
MW-61D	42 - 52	OB	09:58	17.09			
MW-61B	59 - 69	BR	10:02	17.18			
MW-62	19 - 21	OB	11:50	15.37			
MW-62B	26 -36	BR	~~11:57~~ 09:30	15.21			
MW-63	14.5 – 24.5	OB	~~18.43~~	18.43			
UNK-1	UNKNOWN	OB					POTW property. Abandoned.
UNK-2	UNKNOWN	OB		13.30			POTW property. Between POTW and Branch Brook.
UNK-3	UNKNOWN	OB		9.63			POTW property. Between POTW and Branch Brook.
UNK-4	UNKNOWN	OB	10:55	18.29			POTW property. By 43 couplet.
UNK-5S	UNKNOWN	OB		5.70			POTW property. Newly discovered.
UNK-5D	UNKNOWN	OB		6.24			POTW property. Newly discovered.

Indicates well is located across Branch Brook in GA Area

Indicates well is located off Site on Thomaston POTW property and/or adjacent roadway

Indicates waterlevel is unable to be obtained

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston Envirite
Project No.: 08-14218 I
Date: 10/3/16
Weather: Cloudy 70°F

Well ID: MW-43D
Sample ID: MW-43D/20161003
Sampler: Luke C.
Signature: [illegible]

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	2
Depth to Water (ft.):	19.15
Total Depth (ft.):	69.65
Well Volume (gal.):	

Pump Start:	1345 1350

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
1355		10/5	4	40	160	19.20	5.38	14.13	1310	1.98	222.7	2.51	.8
1400		10/5	4	40	160	19.20	5.29	13.42	1310	0.99	228.0	1.32	1.6
1405		10/5	4	40	160	19.20	5.27	13.36	1311	1.25	234.4	1.17	2.4
1410		10/5	4	40	160	19.20	5.27	13.29	1307	0.98	237.6	1.09	3.2
1415		10/5	4	40	160	19.20	5.27	13.26	1305	1.04	239.9	1.06	4
1420		10/5	4	40	160	19.20	5.27	13.27	1304	1.00	240.6	1.01	4.8
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	
Stabilization Achieved (Y/N)					Y	Y	Y	Y	Y	Y	Y	Y	

Sampling/Purging Equipment	
Water Level Meter:	Solinst
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TPW
Pump:	Bladder
Intake Depth (feet below PVC):	64.65
Tubing:	1/4" Poly

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See COC			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min, the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	1420	

Comments: Total Purge Volume = 4.8 L

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Environ
Project No.: 08-14218I
Date: 10/3/16
Weather: Partly Sunny, 70°F

Well ID: MW-44D
Sample ID: MW-44D/20161003
Sampler: D. Gross
Signature: Dale L. Gross

Well Condition Observations	
Protective Casing:	Good
Lock:	↓
Label:	
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	2"
Depth to Water (ft.):	17.72
Total Depth (ft.):	72.0
Well Volume (gal.):	

Pump Start: 13:35

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
13:42		10/5	4	15	60	17.72	6.04	14.44	1593	6.09	134.9	0.62	0.2
13:47		10/5	4	15	60	17.72	6.00	13.10	1360	3.95	146.2	0.65	0.4
13:52		10/5	4	15	60	17.72	5.98	12.76	1395	2.10	156.7	0.26	0.6
13:57		10/5	4	15	60	17.72	5.97	12.69	1423	1.59	162.3	0.01	0.8
14:02		10/5	4	15	60	17.72	5.97	12.71	1434	1.33	165.8	0.04	1.0
14:07		10/5	4	15	60	17.72	5.97	12.63	1437	1.25	166.6	0.11	1.2
14:12		10/5	4	15	60	17.72	5.96	12.64	1448	0.89	167.4	0.04	1.4
14:17		10/5	4	15	60	17.72	5.96	12.51	1443	0.64	168.6	0.01	1.6
14:22		10/5	4	15	60	17.72	5.96	12.62	1447	0.62	168.7	0.01	1.8
14:27		10/5	4	15	60	17.72	5.96	12.50	1444	0.60	169.4	0.01	2.0
						DSC							
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	
Stabilization Achieved (Y/N)					Y	Y	Y	Y	Y	Y	Y	Y	2.0

Sampling/Purging Equipment	
Water Level Meter:	Heron
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TPW
Pump:	Bladder
Intake Depth (feet below PVC):	67'
Tubing:	1/4" Poly

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See Chain of Custody			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	14:27	14:32

Comments: Total Purge Volume = 2 gallons

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston Envirite
Project No.: 08-14218 I
Date: 10/3/16
Weather: Cloudy 70°F

Well ID: ~~MW-435~~ MW-435
Sample ID: MW-435/20161003
Sampler: Luke C.
Signature:

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	2
Depth to Water (ft.):	18.93
Total Depth (ft.):	33.63
Well Volume (gal.):	

Pump Start: 1430

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
1435		10/5	4	50	200	18.95	6.10	13.03	1019	0.86	200.8	3.59	1
1440		10/5	4	50	200	18.95	6.11	12.93	1017	0.32	196.8	2.33	2
1445		10/5	4	50	200	18.95	6.11	12.97	1027	0.20	193.1	2.06	3
1450		10/5	4	50	200	18.95	6.10	12.86	1028	0.16	191.0	1.92	4
1455		10/5	4	50	200	18.95	6.10	12.86	1029	0.14	189.6	1.82	5
1500		10/5	4	50	200	18.95	6.10	12.85	1030	0.13	188.4	1.77	6
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	
Stabilization Achieved (Y/N)					Y	Y	Y	Y	Y	Y	Y	Y	

Sampling/Pureing Equipment	
Water Level Meter:	Solinst
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	MicroTPW
Pump:	Bladder
Intake Depth (feet below PVC):	27.5
Tubing:	1/4" Poly

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See COC			

SAMPLE COLLECTION TIME	START	END
	1500	

Comments: Total Purge Volume = 6 L

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Envirite
Project No.: 08-14218I
Date: 10/3/16
Weather: Partly Sunny

Well ID: MW-42S
Sample ID: MW-42S/20161003
Sampler: D. Cross
Signature: [signature]

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	2"
Depth to Water (ft.):	19.64
Total Depth (ft.):	35.28
Well Volume (gal.):	

Pump Start: 15:00

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
15:02		10/5	4	60	240	19.65	6.20	13.39	514	3.73	163.9	0.27	0.4
15:07		10/5	4	60	240	19.64	6.00	13.20	509	1.67	168.6	0.20	0.8
15:12		10/5	4	60	240	19.64	5.95	13.14	509	1.40	170.6	0.14	1.2
15:17		10/5	4	60	240	19.64	5.94	13.17	510	1.30	171.6	0.15	1.6
15:22		10/5	4	60	240	19.66	5.94	13.17	512	1.26	172.6	0.01	2.0
15:27		10/5	4	60	240	19.65	5.93	13.22	513	1.22	173.5	0.00	2.5
15:32		10/5	4	60	240	19.65	5.93	13.20	515	1.17	174.6	0.00	3.0
15:37													
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	
Stabilization Achieved (Y/N)					Y	Y	Y	Y	Y	Y	Y	Y	3.0

[signature]

Sampling/Purging Equipment	
Water Level Meter:	Heron
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TPW
Pump:	Bladder
Intake Depth (feet below PVC):	27.5'
Tubing:	1/4" poly

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See Chain of Custody			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	15:32	15:37

Comments: Total Purge Volume = 3 gallons

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

ENVIRON
100 Pearl Street, East Tower, Third Floor, Hartford, Connecticut 06103
Tel: +1 860 503 1660 Fax: +1 860 241 0620
environcorp.com

Envirite RCRA Landfill Thomaston, CT
Case Name

10/4/16
Date

08-14218 I
Case #

☐ Phone Call ☐ Meeting ☒ Work ☐ Other

Luke Chmielecki, Dale Cross
ENVIRON Staff Member

GWS
Subject

Other Parties

0700 on site. Calibrated equipment. Cloudy 70°F.
Luke and Dale discuss HASP. Focus on PPE.
Decon of pumps from yesterday.
Luke starts at MW-51D.
Dale starts at MW-41 couplet. Duplicate at MW-41D
Luke moves to microbladder wells MW-30 and MW-31S.
Dale moves to MW-50S and MW-53D
Turbidity over 5 NTUs at MW-31S. Collected a filtered sample too. (.45 micron).
1420 Courier picks up samples.
Clean-up. Offsite 1500.

LC

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston Envirite
Project No.: 08-14218I
Date: 10/4/16
Weather: Cloudy, Lt rain, 70°F

Well ID: MW-51D
Sample ID: MW-51D/20161004
Sampler: Luke C
Signature: [illegible]

Well Condition Observations	
Protective Casing:	Good
Lock:	↓
Label:	LC
Surface Seal:	↓
PVC Well Casing:	↓

Well Volume Calculations	
Well Diameter (in.):	2
Depth to Water (ft.):	17.62
Total Depth (ft.):	28.46
Well Volume (gal.):	LC

Pump Start:	0900

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
0905		10/5	4	50	200	17.65	5.97	18.21	1020	0.86	192.3	2.61	1
0910		10/5	4	50	200	17.65	5.96	18.20	1037	0.63	192.2	1.89	2
0915		10/5	4	50	200	17.65	5.96	18.13	1051	0.42	192.6	1.50	3
0920		10/5	4	50	200	17.65	5.96	18.14	1056	0.31	193.2	1.30	4
0925		10/5	4	50	200	17.65	5.96	18.13	1057	0.26	193.6	1.21	5
0930		10/5	4	50	200	17.65	5.96	18.12	1056	0.19	193.9	1.18	6
							LC						
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	
Stabilization Achieved (Y/N)					Y	Y	Y	Y	Y	Y	Y	Y	

Sampling/Purging Equipment	
Water Level Meter:	Solinst
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Microtpw
Pump:	Bladder
Intake Depth (feet below PVC):	23.50
Tubing:	1/4" Poly

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See COC			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	0930	LC

Comments: Total Purge Volume = 6 L

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Fairville
Project No.: 08-14218I
Date: 10/4/16
Weather: Overcast, 65°F

Well ID: MW-41D
Sample ID: MW-41D/20161004
Sampler: D. Cross
Signature: Dale S. Cross

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	2"
Depth to Water (ft.):	12.38
Total Depth (ft.):	32
Well Volume (gal.):	

Pump Start: 09:10

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
09:12		10/5	4	80	320	12.45	6.86	12.06	321	4.25	167.3	0.54	0.4
09:17		10/5	4	80	320	12.49	6.39	11.87	320	1.60	170.6	0.00	0.8
09:22		10/5	4	80	320	12.45	6.19	11.90	321	1.04	171.5	0.00	1.2
09:27		10/5	4	80	320	12.49	6.09	11.85	319	0.83	172.8	0.00	1.6
09:32		10/5	4	80	320	12.49	6.00	11.84	317	0.69	174.2	0.00	2.0
09:37		10/5	4	80	320	12.49	5.97	11.87	319	0.59	175.3	0.01	2.4
09:42		10/5	4	80	320	12.39	5.94	11.91	317	0.55	176.5	0.00	2.8
09:47		10/5	4	80	320	12.49	5.92	11.94	320	0.48	177.1	0.00	3.2
09:52		10/5	4	80	320	12.48	5.91	11.90	316	0.43	177.4	0.00	3.6
09:57		10/5	4	80	320	12.48	5.90	11.90	320	0.41	177.6	0.00	4.0
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	
Stabilization Achieved (Y/N)					Y	Y	Y	Y	Y	Y	Y	Y	4.0

Sampling/Purging Equipment	
Water Level Meter:	Heron
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TPW
Pump:	Bladder
Intake Depth (feet below PVC):	24.5
Tubing:	1/4"

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See	chain	of	Custody

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	09:57	10:02

Comments: Total Purge Volume = 4 gallons
Collected Dup-20161004 from this location

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston Envirite
Project No.: 08-14218 I
Date: 10/4/16
Weather: Cloudy 70°F

Well ID: MW-30
Sample ID: MW-30/20161004
Sampler: Luke C
Signature: [illegible]

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	LC
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	1.5
Depth to Water (ft.):	18.40
Total Depth (ft.):	44.77
Well Volume (gal.):	LC

Pump Start: 1030

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (mL) (Liters or gallons)
1040		5/5	6	5	30	18.40	6.39	18.42	3020	1.16	177.8	12.43	150
1045		5/5	6	5	30	18.40	6.40	17.82	2971	0.77	175.9	4.61	300
1050	LC	5/5	6	5	30	18.40	6.39	17.60	2958	0.52	174.7	1.12	450
1055		5/5	6	5	30	18.40	6.38	17.61	2960	0.36	173.8	0.46	600
1100		5/5	6	5	30	18.40	6.39	17.63	2959	0.31	172.2	0.84	750
1105		5/5	6	5	30	18.40	6.39	17.65	2957	0.26	171.1	0.80	900
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	
Stabilization Achieved (Y/N)					N*	✓	✓	✓	✓	✓	✓	✓	

Sampling/Purging Equipment	
Water Level Meter:	Solinst
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	MicroTPW
Pump:	Micro Bladder
Intake Depth (feet below PVC):	40
Tubing:	1/4" + 1/8" Poly

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See	COC		

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	1105	LC

Comments: Total Purge Volume = 900 ml
*unable to pump faster (micro bladder).

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Environ
Project No.: 08-14218 I
Date: 10/4/16
Weather: Overcast 65°F

Well ID: MW-415
Sample ID: MW-415/20161004
Sampler: D. Cogs
Signature: [signature]

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	2"
Depth to Water (ft.):	12.85
Total Depth (ft.):	20'
Well Volume (gal.):	

Pump Start: 10:30

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
10:32		10/5	4	75	300	12.87	5.20	13.22	326	3.23	215.6	5.74	0.4
10:37		10/5	4	75	300	12.85	4.82	13.05	326	1.62	207.9	6.57	0.8
10:42		10/5	4	75	300	12.85	4.76	12.90	325	0.79	209.1	5.60	1.2
10:47		10/5	4	75	300	12.85	4.74	12.85	325	0.59	213.2	2.91	1.6
10:52		10/5	4	75	300	12.85	4.68	12.83	325	0.50	223.1	1.85	2.0
10:57		10/5	4	75	300	12.85	4.68	12.86	325	0.45	226.0	1.50	2.4
11:02		10/5	4	75	300	12.85	4.69	12.92	325	0.41	231.5	0.86	2.8
11:07		10/5	4	75	300	12.85	4.67	12.89	325	0.39	237.8	0.45	3.2
11:12		10/5	4	75	300	12.85	4.68	12.86	325	0.36	243.9	0.45	3.6
11:17		10/5	4	75	300	12.85	4.68	12.83	324	0.36	247.6	0.13	4.0
11:22													
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	
Stabilization Achieved (Y/N)					Y	Y	Y	Y	Y	Y	Y	Y	4.0

DSC

Sampling/Purging Equipment	
Water Level Meter:	Heron
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TPW
Pump:	Bladder
Intake Depth (feet below PVC):	15'
Tubing:	1/4" poly

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See Chain of Custody			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	11:17	11:23

Comments: Total Purge Volume = 4 gallons

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Envirite
Project No.: 08-14218I
Date: 10/4/16
Weather: Overcast, 65°F

Well ID: MW-50S
Sample ID: MW-50S/20161004
Sampler: D. Coss
Signature: [signature]

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	2"
Depth to Water (ft.):	14.19
Total Depth (ft.):	18.7
Well Volume (gal.):	

Pump Start: 12:11

DSC 14.21

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
12:20		10/5	4	25	100	~~14.90~~	5.05	16.45	881	2.84	235.2	1.18	0.25
12:25		10/5	4	25	100	14.21	4.95	15.99	891	0.87	244.0	1.06	0.5
12:30		10/5	4	25	100	14.21	4.95	15.79	899	0.58	249.7	0.67	0.75
12:35		10/5	4	25	100	14.21	4.95	15.74	902	0.48	253.6	0.45	1.0
12:40		10/5	4	25	100	14.21	4.94	15.68	904	0.44	257.7	0.17	1.25
12:45		10/5	4	25	100	14.21	4.95	15.67	907	0.38	261.2	0.12	1.5
													~~1.5~~ DSC
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	+
Stabilization Achieved (Y/N)					Y	Y	Y	Y	Y	Y	Y	Y	1.5

[signature]

Sampling/Purging Equipment	
Water Level Meter:	Heron
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TPW
Pump:	Bladder
Intake Depth (feet below PVC):	16.2
Tubing:	1/4" poly

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See Chain of Custody			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	12:40	12:52

Comments: Total Purge Volume = 1.5 gal

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Thomaston
Project No.: 08-14218I
Date: 10/4/16
Weather: Cloudy 70°F

Well ID: MW-31S
Sample ID: MW-31S/20161004
Sampler: Luke C
Signature: [illegible]

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	
Surface Seal:	
PVC Well Casing:	

Well Volume Calculations	
Well Diameter (in.):	1.5
Depth to Water (ft.):	17.23
Total Depth (ft.):	27.00
Well Volume (gal.):	

Pump Start: 1220

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons) mL
1230		5/5	6	10	60	17.64	5.79	17.01	871	0.70	-109.7	NM	300
1235		5/5	6	10	60	18.04	5.79	16.37	851	0.37	-123.0	10.92	600
1240		5/5	6	10	60	18.50	5.80	16.20	847	0.26	-131.1	11.58	900
1245		5/5	6	10	60	18.75	5.81	16.32	847	0.26	-135.2	12.83	1200
1250		5/5	6	10	60	18.96	5.89	16.34	845	0.27	-139.2	17.59	1500
1255		5/5	6	10	60	19.19	5.92	16.33	847	0.21	-138.2	21.02	1800
1300		5/5	6	10	60	19.30	5.93	16.35	848	0.19	-138.0	24.86	2100

Stabilization Criteria	100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU
Stabilization Achieved (Y/N)	N*	Y	Y	Y	Y	Y	Y	N**

Sampling/Purging Equipment	
Water Level Meter:	Solinst
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	MicroTPW
Pump:	Micro Bladder
Intake Depth (feet below PVC):	22
Tubing:	1/4" + 1/8" Poly

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mL/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See COC			

SAMPLE COLLECTION TIME	START	END
	1300	

Comments: Total Purge Volume = 2100 mL
* Unable to pump faster (microbladder).
Strong odor.
** Increasing turbidity. Took a filtered sample on HOLD.

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

LOW FLOW GROUNDWATER SAMPLING FIELD FORM

Site: Environ
Project No.: 08-14218I
Date: 10/4/16
Weather: Overcast 65°F

Well ID: MW-53D
Sample ID: MW-53D/2016 1004
Sampler: D. Cross
Signature:

Well Condition Observations	
Protective Casing:	Good
Lock:	
Label:	
Surface Seal:	
PVC Well Casing:	Broken at top

Well Volume Calculations	
Well Diameter (in.):	2"
Depth to Water (ft.):	16.1
Total Depth (ft.):	40'
Well Volume (gal.):	

Pump Start: 13:35

DTW 15.95

Time	Throttle SETTING (Feet H_2O)	Time Refill/ Discharge	Cycles per Minute	Discharge Volume/Cycle (mL)	FLOW RATE (mL/min)	DEPTH TO WATER (feet)	pH (SU)	TEMP (°C)	SPECIFIC CONDUCTANCE (uS/cm)	DISSOLVED OXYGEN (mg/L)	ORP (mV)	TURBIDITY (NTU)	TOTAL PURGE VOLUME (liters or gallons)
13:42		10/5	4	30	120	16.03	6.01	16.63	1045	3.93	212.5	22.26	0.3
13:47		10/5	4	30	120	~~14.16~~	6.05	14.11	1317	0.70	212.9	12.80	0.6
13:52		10/5	4	30	120	15.8	6.05	13.96	1320	0.56	211.6	5.19	0.9
13:57		10/5	4	30	120	15.95	6.05	14.07	1464	0.45	211.2	14.58	1.2
14:02		10/5	4	30	120	15.95	6.06	13.87	1478	0.37	210.1	3.55	1.5
14:07		10/5	4	30	120	15.95	6.06	13.84	1496	0.33	209.1	1.91	1.8
14:12		10/5	4	30	120	15.95	6.06	13.75	1495	0.31	208.4	1.19	2.0
Stabilization Criteria					100 - 400 mL/min	Drawdown < 0.3'	+/- 0.1 units	3%	3%	10% > 0.5 mg/L or 3 consecutive readings <0.5 mg/L	+/- 10 mV	10% >5 NTU or 3 consecutive readings < 5 NTU	
Stabilization Achieved (Y/N)					120	Y	Y	Y	Y	Y	Y	Y	2.0

Sampling/Purging Equipment	
Water Level Meter:	Heron
pH/S.C./Dissolved Oxygen/ORP:	YSI
Turbidity:	Micro TPW
Pump:	Bladder
Intake Depth (feet below PVC):	32.5
Tubing:	1/4" poly

Laboratory Analyses/Containers			
Container	Preservative	#	Analysis
See Chain of Custody			

Note: During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a minimum frequency of 3-5 minute intervals or greater. The pump's flow rate must be able to "turn over" at least one (1) flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly.

SAMPLE COLLECTION TIME	START	END
	14:12	14:17

Comments: Total Purge Volume = 2.0

RAMBOLL ENVIRON

8 Hollis Street
Groton, MA 01450

RAMBOLL ENVIRON

EQUIPMENT CALIBRATION LOG

PRELIMINARY FIELD DRAFT REVIEW PENDING

3 Carlisle Road, Suite 210
Westford, MA 01886
T: +1 978 449 0358
F: +1 978 449 0301

PAGE LC of

PROJECT NAME: Envirite RCRA Landfill

FIELD PERSON: Luke C. and Dale C.

PROJECT NUMBER: 08-14218 I

PROJECT MANAGER: John Noble

PROJECT LOCATION: Thomaston CT

FORM DATES: FROM 10/3/16 TO 10/4/16

DATE	EQUIPMENT MODEL/TYPE	SERIAL NUMBER	TEMP. (°C)	STANDARD	PRECALIBRATED READING	CALIBRATED READING
10/3/16	YSI	11G100863		Cond=1000 DO=100 ORP=200 pH=4,7,10	Cond=1003 DO=97 ORP=196 pH=4,7,10	Cond=1000 DO=100 ORP=200 pH=4,7,10
10/3/16	Turb	MicroTPW		0, 10, 100	0, 10, 100	0, 10, 100
10/3/16	YSI	14F100062		Cond=1000 DO=100 ORP=200 pH=4,7,10	Cond=1001 DO=96 ORP=197 pH=4,7,10	Cond=1000 DO=100 ORP=200 pH=4,7,10
10/3/16	Turb	MicroTPW		0, 10, 100	0, 10, 100	0, 10, 100
10/4/16	YSI	11G100863	LC	Cond=1000 DO=100 ORP=200 pH=4,7,10	Cond=1004 DO=98 ORP=199 pH=4,7,10	Cond=1000 DO=100 ORP=200 pH=4,7,10
10/4/16	Turb	MicroTPW		0, 10, 100	0, 10, 100	0, 10, 100
10/4/16	YSI	14F100062		Cond=1000 DO=100 ORP=200 pH=4,7,10	Cond=1001 DO=97 ORP=196 pH=4,7,10	Cond=1000 DO=100 ORP=200 pH=4,7,10
10/4/16	Turb	MicroTPW		0, 10, 100	0, 10, 100	0, 10, 100
			LC			

FORMS\Equipment Calibration Log.xlsx

eurofins | Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 1 of 3

Special Handling:

- [x] Standard TAT - 7 to 10 business days 5 Day
- [ ] Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed

Report To: Ramboll Environ
3 Carlisle Rd. Suite 210
Westford, MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibinga
Envirite Corporation
PO Box 591
Chappaqua, NY 10514

P.O No.: _____ Quote #: _____

Project No: 08-14218 I
Site Name: Envirite RCRA Landfill
Location: Thomaston State: CT
Sampler(s): Luke C
Dale C

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= _____ 12= _____

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= Trip Blank X2= Equipment Blank X3= _____

G= Grab C=Compsite

List Preservative Code below: 2 | 4 | 4

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? [ ] Yes [ ] No
CT DPH RCP Report? [x] Yes [ ] No
[ ] Standard [ ] No QC
[x] DQA*
[ ] ASP A* [ ] ASP B*
[ ] NJ Reduced* [ ] NJ Full*
[ ] Tier II* [ ] Tier IV*
[x] Other: CT RCPs CT RSRs
State-specific reporting standards:

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	VOCs 8260	As, Ca, Cr, Cu, Ni, Zn	Dissolved As, Cd, Cu, Zn (6020)*	Check if chlorinated
	TB-20161003	10/3/16	0900	G	X1	1				X			[ ]
	EB-20161003		1200		X2	3			1	X		X	[ ]
	DUP-20161003		NA		SW	3			1	X		X	[ ]
	SW-NR-1/20161003		0930		SW	3			1	X		X	[ ]
	SW-NR-2/20161003		1000		SW	3			1	X		X	[ ]
	SW-BB-1/20161003		1100		SW	3			1	X		X	[ ]
	SW-BB-2/20161003		1130		SW	3			1	X		X	[ ]
	MW-44D/20161003		1427		GW	3			1	X	X		[ ]
	MW-43S/20161003		1500		GW	3			1	X	X		[ ]
	MW-43D/20161003	10/3/16	1420	G	GW	3			1	X	X		[ ]

Relinquished by:	Received by:	Date:	Time:	Temp °C
[signature]	[signature]	10/4/16	14:20	Observed
				Correction Factor
				Corrected
				IR ID #

[ ] EDD format: Environ Equis 4 File
[ ] E-mail to: jnoble@ramboll.com
*Freshwater Aquatic Life Criteria, Report J Values

Condition upon receipt: Custody Seals: [ ] Present [ ] Intact [ ] Broken
[ ] Ambient [x] Iced [ ] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

eurofins | Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 2 of 3

Special Handling:

☒ Standard TAT - 7 to 10 business days 5 Day

☐ Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford, MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibinga
Envirite Corporation
PO Box 591
Chappaqua, NY 10514

P.O No.: _____ Quote #: _____

Project No: 08-14218 I
Site Name: Envirite RCRA Landfill
Location: Thomaston State: CT
Sampler(s): Luke C
Date C

F=Field Filtered 1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= _____ 12= _____

List Preservative Code below:

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= Trip Blank X2= Equipment Blank X3= _____

G= Grab C=Compsite

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☒ Yes ☐ No
☐ Standard ☐ No QC
☒ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☒ Other: CT RCP, CT RSRS
State-specific reporting standards:

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	VOCs 8260	As, Cd, Cr, Cu, Ni, Zn	Check if chlorinated
	MW-42S/20161003	10/3/16	1532	G	GW	3			1	X	X	☐
	TB-20161004	10/4/16	0900		X1	1				X		☐
	EB-20161004		1200		X2	3			1	X	X	☐
	DUP-20161004		NA		GW	3			1	X	X	☐
	MW-41S/20161004		1117			3			1	X	X	☐
	MW-41D/20161004		0957			3			1	X	X	☐
	MW-50S/20161004		1245			3			1	X	X	☐
	MW-53D/20161004		1412			3			1	X	X	☐
	MW-51D/20161004		0930			3			1	X	X	☐
	MW-30/20161004	10/4/16	1105	G	GW	3			1	X	X	☐

Relinquished by:	Received by:	Date:	Time:	Temp °C
[signature]	Skylar Reid	10/4/16	17:21	Observed
				Correction Factor
				Corrected
				IR ID #

☐ EDD format: ~~Environ~~ Environ - Equis 4 File
☐ E-mail to: jnoble@ramboll.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

eurofins | Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 3 of 3

Special Handling:

☒ Standard TAT - 7 to 10 business days 5 Day

☐ Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford, MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibinga
Envirite Corporation
PO Box 591
Chappaqua, NY 10514

P.O No.: _____ Quote #: _____

Project No: 08-14218I
Site Name: Envirite RCRA Landf.II
Location: Thomaston State: CT
Sampler(s): Luke C
Dale C

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= _____ 12= _____

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= _____ X2= _____ X3= _____

G= Grab C=Compsite

List Preservative Code below: 2 4 4

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☒ Yes ☐ No
☐ Standard ☐ No QC
☒ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☒ Other: CT RCPs CT RSRs
State-specific reporting standards:

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		VOCs 8260	As, Ca, Cr, Cu, Ni, Zn	HOLD						Check if chlorinated
	MW-31S/20161004	10/4/16	1300	G	GW	3			1		X	X							☐
	MW-31S/20161004 F	10/4/16	1300	G	GW				1				X						☐
																			☐
																			☐
																			☐
																			☐
																			☐
																			☐
																			☐
																			☐

Relinquished by:	Received by:	Date:	Time:	Temp °C
[signature]	Skyler Reid	10/4/16	14:21	Observed
				Correction Factor
				Corrected
				IR ID #

☐ EDD format: Environ Equis 4 File
☐ E-mail to: jnoble@ramboll.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

APPENDIX B
EUROFINS SPECTRUM ANALYTICAL, INC. LABORATORY REPORTS (SC26674)

eurofins | Spectrum Analytical

- [x] Final Report
- [ ] Re-Issued Report
- [ ] Revised Report

Report Date:
12-Oct-16 17:06

Laboratory Report

Ramboll Environ US Corporation
3 Carlisle Rd
Westford, MA 01886
Attn: John Noble

Project: Envirite RCRA Landfill - Thomaston, CT
Project #: 08-14218I

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC26674-01	TB-20161003	Trip Blank	03-Oct-16 09:00	04-Oct-16 16:20
SC26674-02	EB-20161003	Equipment Blank	03-Oct-16 12:00	04-Oct-16 16:20
SC26674-03	DUP-20161003	Surface Water	03-Oct-16 00:00	04-Oct-16 16:20
SC26674-04	SW-NR-1/20161003	Surface Water	03-Oct-16 09:30	04-Oct-16 16:20
SC26674-05	SW-NR-2/20161003	Surface Water	03-Oct-16 10:00	04-Oct-16 16:20
SC26674-06	SW-BB-1/20161003	Surface Water	03-Oct-16 11:00	04-Oct-16 16:20
SC26674-07	SW-BB-2/20161003	Surface Water	03-Oct-16 11:30	04-Oct-16 16:20
SC26674-08	MW-44D/20161003	Ground Water	03-Oct-16 14:27	04-Oct-16 16:20
SC26674-09	MW-43S/20161003	Ground Water	03-Oct-16 15:00	04-Oct-16 16:20
SC26674-10	MW-43D/20161003	Ground Water	03-Oct-16 14:20	04-Oct-16 16:20
SC26674-11	MW-42S/20161003	Ground Water	03-Oct-16 15:32	04-Oct-16 16:20
SC26674-12	TB-20161004	Trip Blank	04-Oct-16 09:00	04-Oct-16 16:20
SC26674-13	EB/20161004	Equipment Blank	04-Oct-16 12:00	04-Oct-16 16:20
SC26674-14	DUP/20161004	Ground Water	04-Oct-16 00:00	04-Oct-16 16:20
SC26674-15	MW-41S/20161004	Ground Water	04-Oct-16 11:17	04-Oct-16 16:20
SC26674-16	MW-41D/20161004	Ground Water	04-Oct-16 09:57	04-Oct-16 16:20
SC26674-17	MW-50S/20161004	Ground Water	04-Oct-16 12:45	04-Oct-16 16:20
SC26674-18	MW-53D/20161004	Ground Water	04-Oct-16 14:12	04-Oct-16 16:20
SC26674-19	MW-51D/20161004	Ground Water	04-Oct-16 09:30	04-Oct-16 16:20
SC26674-20	MW-30/20161004	Ground Water	04-Oct-16 11:05	04-Oct-16 16:20
SC26674-21	MW-31S/20161004	Ground Water	04-Oct-16 13:00	04-Oct-16 16:20
SC26674-22	MW-31S/20161004 F	Ground Water	04-Oct-16 13:00	04-Oct-16 16:20

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

June O'Connor
Laboratory Director

Eurofins Spectrum Analytical holds primary NELAC certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 109 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Reasonable Confidence Protocols
Laboratory Analysis
QA/QC Certification Form

Laboratory Name: Eurofins Spectrum Analytical, Inc.

Client: Ramboll Environ US Corporation - Westford, MA

Project Location: Envirite RCRA Landfill - Thomaston, CT

Project Number: 08-14218I

Sampling Date(s):
10/3/2016 through 10/4/2016

Laboratory Sample ID(s):
SC26674-01 through SC26674-22

RCP Methods Used:

EPA 200.7/3005A/6010
SW846 6010C
SW846 6020A
SW846 8260C

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	✓ Yes	No
1A	Were the method specified preservation and holding time requirements met?	✓ Yes	No
1B	***VPH and EPH methods only***: Was the VPH or EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	Yes	No
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	✓ Yes	No
3	Were samples received at an appropriate temperature?	✓ Yes	No
4	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	Yes	✓ No
5	a) Were reporting limits specified or referenced on the chain-of-custody? b) Were these reporting limits met?	Yes Yes	✓ No No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes	✓ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	✓ Yes	No

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for obtaining the information contained in this analytical report, such information is accurate and complete.

June O'Connor
Laboratory Director
Date: 10/12/2016

CASE NARRATIVE:

Data has been reported to the MDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

The samples were received 2.6 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

Required site-specific Matrix Spike/Matrix Spike Duplicate (MS/MSD) must be requested by the client and sufficient sample must be submitted for the additional analyses. Samples submitted with insufficient volume/weight will not be analyzed for site specific MS/MSD, however a batch MS/MSD may be analyzed from a non-site specific sample.

CTDEP has published a list of analytical methods which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of decisions being made utilizing the Reasonable Confidence Protocol (RCP). "Reasonable Confidence" can be established only for those methods published by the CTDEP in the RCP guidelines. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

The CTDEP RCP requests that "all non-detects and all results below the reporting limit are reported as ND (Not Detected at the Specified Reporting Limit)". All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

If no reporting limits were specified or referenced on the chain-of-custody the laboratory's practical quantitation limits were applied.

According to CTDEP RCP Quality Assurance and Quality Control Requirements for VOCs by method 8260, SW-846 version 1, 7/28/05 Table 1A, recovery for some VOC analytes have been deemed potentially difficult.

For this work order, the reporting limits have not been referenced or specified.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 6020A

Duplicates:

1617159-DUP1 *Source: SC26674-05*

MRL raised to correlate to batch QC reporting limits.

Copper

The Reporting Limit has been raised to account for matrix interference.

Arsenic

Samples:

SC26674-02 *EB-20161003*

MRL raised to correlate to batch QC reporting limits.

Copper

The Reporting Limit has been raised to account for matrix interference.

Arsenic

SC26674-03 *DUP-20161003*

SW846 6020A

Samples:

SC26674-03 *DUP-20161003*

MRL raised to correlate to batch QC reporting limits.

Copper

The Reporting Limit has been raised to account for matrix interference.

Arsenic

SC26674-04 *SW-NR-1/20161003*

MRL raised to correlate to batch QC reporting limits.

Copper

The Reporting Limit has been raised to account for matrix interference.

Arsenic

SC26674-05 *SW-NR-2/20161003*

MRL raised to correlate to batch QC reporting limits.

Copper

The Reporting Limit has been raised to account for matrix interference.

Arsenic

SC26674-06 *SW-BB-1/20161003*

MRL raised to correlate to batch QC reporting limits.

Copper

The Reporting Limit has been raised to account for matrix interference.

Arsenic

SC26674-07 *SW-BB-2/20161003*

MRL raised to correlate to batch QC reporting limits.

Copper

The Reporting Limit has been raised to account for matrix interference.

Arsenic

SW846 8260C

Calibration:

1610011

SW846 8260C

Calibration:

1610011

Analyte quantified by quadratic equation type calibration.

1,2,4-Trimethylbenzene
1,2-Dibromo-3-chloropropane
1,3,5-Trimethylbenzene
2-Hexanone (MBK)
Bromoform
Carbon disulfide
Carbon tetrachloride
cis-1,3-Dichloropropene
Dibromochloromethane
Naphthalene
n-Butylbenzene
trans-1,3-Dichloropropene
trans-1,4-Dichloro-2-butene

This affected the following samples:

1617128-BLK1
1617128-BS1
1617128-BSD1
1617128-MS1
1617128-MSD1
1617230-BLK1
1617230-BS1
1617230-BSD1
1617230-MS1
1617230-MSD1
1617310-BLK1
1617310-BS1
1617310-BSD1
1617310-MS1
1617310-MSD1
DUP/20161004
DUP-20161003
EB/20161004
EB-20161003
MW-30/20161004
MW-31S/20161004
MW-41D/20161004
MW-41S/20161004
MW-42S/20161003
MW-43D/20161003
MW-43S/20161003
MW-44D/20161003
MW-50S/20161004
MW-51D/20161004
MW-53D/20161004
S608460-CCV1
S608471-ICV1
S608500-CCV1
S608559-CCV1
SW-BB-1/20161003
SW-BB-2/20161003
SW-NR-1/20161003
SW-NR-2/20161003
TB-20161003
TB-20161004

SW846 8260C

Calibration:

S608471-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

trans-1,4-Dichloro-2-butene (121%)

This affected the following samples:

1617128-BLK1
1617128-BS1
1617128-BSD1
1617128-MS1
1617128-MSD1
1617230-BLK1
1617230-BS1
1617230-BSD1
1617230-MS1
1617230-MSD1
1617310-BLK1
1617310-BS1
1617310-BSD1
1617310-MS1
1617310-MSD1
DUP/20161004
DUP-20161003
EB/20161004
EB-20161003
MW-30/20161004
MW-31S/20161004
MW-41D/20161004
MW-41S/20161004
MW-42S/20161003
MW-43D/20161003
MW-43S/20161003
MW-44D/20161003
MW-50S/20161004
MW-51D/20161004
MW-53D/20161004
S608460-CCV1
S608500-CCV1
S608559-CCV1
SW-BB-1/20161003
SW-BB-2/20161003
SW-NR-1/20161003
SW-NR-2/20161003
TB-20161003
TB-20161004

Laboratory Control Samples:

1617128 BS/BSD

SW846 8260C

Laboratory Control Samples:

1617128 BS/BSD

1,4-Dioxane percent recoveries (65/90) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

DUP/20161004
DUP-20161003
EB/20161004
EB-20161003
MW-42S/20161003
MW-43D/20161003
MW-43S/20161003
MW-44D/20161003
MW-50S/20161004
SW-BB-1/20161003
SW-BB-2/20161003
SW-NR-1/20161003
SW-NR-2/20161003
TB-20161003
TB-20161004

2,2-Dichloropropane percent recoveries (69/79) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

DUP/20161004
DUP-20161003
EB/20161004
EB-20161003
MW-42S/20161003
MW-43D/20161003
MW-43S/20161003
MW-44D/20161003
MW-50S/20161004
SW-BB-1/20161003
SW-BB-2/20161003
SW-NR-1/20161003
SW-NR-2/20161003
TB-20161003
TB-20161004

1617128 BSD

1,1,2-Trichlorotrifluoroethane (Freon 113) RPD 24% (20%) is outside individual acceptance criteria.

1,4-Dioxane RPD 33% (20%) is outside individual acceptance criteria.

Trichlorofluoromethane (Freon 11) RPD 23% (20%) is outside individual acceptance criteria.

1617230 BS/BSD

trans-1,4-Dichloro-2-butene percent recoveries (127/131) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

MW-30/20161004
MW-41D/20161004
MW-41S/20161004
MW-51D/20161004
MW-53D/20161004

1617230 BSD

SW846 8260C

Laboratory Control Samples:

1617230 BSD

1,1,2-Trichlorotrifluoroethane (Freon 113) RPD 24% (20%) is outside individual acceptance criteria.

2-Chlorotoluene RPD 25% (20%) is outside individual acceptance criteria.

Dichlorodifluoromethane (Freon12) RPD 21% (20%) is outside individual acceptance criteria.

Trichlorofluoromethane (Freon 11) RPD 22% (20%) is outside individual acceptance criteria.

1617310 BS/BSD

1,4-Dioxane percent recoveries (165/112) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

MW-31S/20161004
MW-53D/20161004

Bromomethane percent recoveries (66/62) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-31S/20161004
MW-53D/20161004

Dichlorodifluoromethane (Freon12) percent recoveries (67/66) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-31S/20161004
MW-53D/20161004

Ethanol percent recoveries (143/109) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

MW-31S/20161004
MW-53D/20161004

Tetrahydrofuran percent recoveries (136/106) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

MW-31S/20161004
MW-53D/20161004

trans-1,4-Dichloro-2-butene percent recoveries (136/124) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

MW-31S/20161004
MW-53D/20161004

Vinyl chloride percent recoveries (67/75) are outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-31S/20161004
MW-53D/20161004

1617310 BSD

1,4-Dioxane RPD 39% (20%) is outside individual acceptance criteria.

2-Butanone (MEK) RPD 25% (20%) is outside individual acceptance criteria.

2-Chlorotoluene RPD 23% (20%) is outside individual acceptance criteria.

SW846 8260C

Laboratory Control Samples:

1617310 BSD

2-Hexanone (MBK) RPD 22% (20%) is outside individual acceptance criteria.

Acetone RPD 30% (20%) is outside individual acceptance criteria.

Acrylonitrile RPD 22% (20%) is outside individual acceptance criteria.

Ethanol RPD 27% (20%) is outside individual acceptance criteria.

Tert-Butanol / butyl alcohol RPD 30% (20%) is outside individual acceptance criteria.

Tetrahydrofuran RPD 25% (20%) is outside individual acceptance criteria.

Spikes:

1617128-MS1 *Source: SC26674-17*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,4-Dioxane

1617128-MSD1 *Source: SC26674-17*

RPD out of acceptance range.

1,4-Dioxane

1617230-MS1 *Source: SC26674-20*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

cis-1,2-Dichloroethene

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

cis-1,2-Dichloroethene

1617230-MSD1 *Source: SC26674-20*

This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.

cis-1,2-Dichloroethene

1617310-MS1 *Source: SC26674-21*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,4-Dioxane
4-Methyl-2-pentanone (MIBK)
Ethanol
trans-1,4-Dichloro-2-butene

1617310-MSD1 *Source: SC26674-21*

SW846 8260C

Spikes:

1617310-MSD1 *Source: SC26674-21*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,4-Dioxane
4-Methyl-2-pentanone (MIBK)
Ethanol
trans-1,4-Dichloro-2-butene

Samples:

S608460-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2-Trichlorotrifluoroethane (Freon 113) (-21.4%)
1,4-Dioxane (-35.3%)
2,2-Dichloropropane (-26.5%)
Dichlorodifluoromethane (Freon12) (-23.3%)
Trichlorofluoromethane (Freon 11) (-20.6%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Carbon tetrachloride (-20.2%)

This affected the following samples:

1617128-BLK1
1617128-BS1
1617128-BSD1
1617128-MS1
1617128-MSD1
DUP/20161004
DUP-20161003
EB/20161004
EB-20161003
MW-42S/20161003
MW-43D/20161003
MW-43S/20161003
MW-44D/20161003
MW-50S/20161004
SW-BB-1/20161003
SW-BB-2/20161003
SW-NR-1/20161003
SW-NR-2/20161003
TB-20161003
TB-20161004

S608500-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2-Trichlorotrifluoroethane (Freon 113) (-24.2%)
2,2-Dichloropropane (-22.6%)
Dichlorodifluoromethane (Freon12) (-24.9%)
Ethyl tert-butyl ether (-21.3%)
Trichlorofluoromethane (Freon 11) (-21.0%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Carbon tetrachloride (-21.8%)
trans-1,4-Dichloro-2-butene (27.4%)

SW846 8260C

Samples:

S608500-CCV1

This affected the following samples:

1617230-BLK1
1617230-BS1
1617230-BSD1
1617230-MS1
1617230-MSD1
MW-30/20161004
MW-41D/20161004
MW-41S/20161004
MW-51D/20161004
MW-53D/20161004

S608559-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2-Trichlorotrifluoroethane (Freon 113) (-25.9%)
1,1-Dichloropropene (-20.7%)
2,2-Dichloropropane (-21.4%)
Bromomethane (-37.6%)
Dichlorodifluoromethane (Freon12) (-33.9%)
Tert-Butanol / butyl alcohol (-21.0%)
Trichlorofluoromethane (Freon 11) (-23.7%)
Vinyl chloride (-24.8%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

trans-1,4-Dichloro-2-butene (24.5%)

This affected the following samples:

1617310-BLK1
1617310-BS1
1617310-BSD1
1617310-MS1
1617310-MSD1
MW-31S/20161004
MW-53D/20161004

SC26674-18RE1 *MW-53D/20161004*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC26674-20 *MW-30/20161004*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC26674-21 *MW-31S/20161004*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Acceptance Check Form

Client:	Ramboll Environ US Corporation - Westford, MA
Project:	Envirite RCRA Landfill - Thomaston, CT / 08-14218I
Work Order:	SC26674
Sample(s) received on:	10/4/2016

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☐	☑	☐
Were custody seals intact?	☐	☐	☑
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC26674-02 **Client ID:** EB-20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00002	J	0.00025	mg/l	SW846 6020A

Lab ID: SC26674-03 **Client ID:** DUP-20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00007	J	0.00025	mg/l	SW846 6020A

Lab ID: SC26674-04 **Client ID:** SW-NR-1/20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00007	J	0.00025	mg/l	SW846 6020A

Lab ID: SC26674-05 **Client ID:** SW-NR-2/20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00006	J	0.00025	mg/l	SW846 6020A

Lab ID: SC26674-06 **Client ID:** SW-BB-1/20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00004	J	0.00025	mg/l	SW846 6020A

Lab ID: SC26674-07 **Client ID:** SW-BB-2/20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.00007	J	0.00025	mg/l	SW846 6020A

Lab ID: SC26674-08 **Client ID:** MW-44D/20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	0.0046		0.0040	mg/l	SW846 6010C
Copper	0.0268		0.0050	mg/l	SW846 6010C
Nickel	0.0342		0.0050	mg/l	SW846 6010C
Zinc	0.0388		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	83.9		1.0	µg/l	SW846 8260C
Tetrachloroethene	24.0		1.0	µg/l	SW846 8260C
Trichloroethene	54.2		1.0	µg/l	SW846 8260C
Vinyl chloride	5.7		1.0	µg/l	SW846 8260C

Lab ID: SC26674-09 **Client ID:** MW-43S/20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	0.0088		0.0040	mg/l	SW846 6010C
Copper	0.0174		0.0050	mg/l	SW846 6010C
Nickel	0.0122		0.0050	mg/l	SW846 6010C
Zinc	0.0126		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	10.1		1.0	µg/l	SW846 8260C
Tetrachloroethene	9.6		1.0	µg/l	SW846 8260C
Trichloroethene	10.1		1.0	µg/l	SW846 8260C

Lab ID: SC26674-10 **Client ID:** MW-43D/20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium	0.0029		0.0025	mg/l	SW846 6010C
Copper	0.473		0.0050	mg/l	SW846 6010C
Nickel	0.140		0.0050	mg/l	SW846 6010C
Zinc	0.447		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	74.3		1.0	µg/l	SW846 8260C
Tetrachloroethene	21.0		1.0	µg/l	SW846 8260C
Trichloroethene	45.6		1.0	µg/l	SW846 8260C
Vinyl chloride	3.2		1.0	µg/l	SW846 8260C

Lab ID: SC26674-11 **Client ID:** MW-42S/20161003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Copper	0.0212		0.0050	mg/l	SW846 6010C
Nickel	0.0296		0.0050	mg/l	SW846 6010C
Zinc	0.0868		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	11.4		1.0	µg/l	SW846 8260C
Tetrachloroethene	4.5		1.0	µg/l	SW846 8260C
Trichloroethene	6.1		1.0	µg/l	SW846 8260C

Lab ID: SC26674-14 **Client ID:** DUP/20161004

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
cis-1,2-Dichloroethene	10.2		1.0	µg/l	SW846 8260C
Tetrachloroethene	2.6		1.0	µg/l	SW846 8260C
Trichloroethene	4.7		1.0	µg/l	SW846 8260C

Lab ID: SC26674-15 **Client ID:** MW-41S/20161004

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Copper	0.0057		0.0050	mg/l	SW846 6010C
Zinc	0.0220		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	8.1		1.0	µg/l	SW846 8260C
Tetrachloroethene	1.9		1.0	µg/l	SW846 8260C
Trichloroethene	3.6		1.0	µg/l	SW846 8260C

Lab ID: SC26674-16 **Client ID:** MW-41D/20161004

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
cis-1,2-Dichloroethene	10.5		1.0	µg/l	SW846 8260C
Tetrachloroethene	2.4		1.0	µg/l	SW846 8260C
Trichloroethene	4.6		1.0	µg/l	SW846 8260C

Lab ID: SC26674-17 **Client ID:** MW-50S/20161004

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Copper	0.0065		0.0050	mg/l	SW846 6010C
Nickel	0.0068		0.0050	mg/l	SW846 6010C
Zinc	0.116		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	39.9		1.0	µg/l	SW846 8260C
Tetrachloroethene	8.3		1.0	µg/l	SW846 8260C
Trichloroethene	15.2		1.0	µg/l	SW846 8260C

Lab ID: SC26674-18 **Client ID:** MW-53D/20161004

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	0.0074		0.0040	mg/l	SW846 6010C
Chromium	0.0078		0.0050	mg/l	SW846 6010C
Copper	0.0173		0.0050	mg/l	SW846 6010C
Nickel	0.0274		0.0050	mg/l	SW846 6010C
Zinc	0.0246		0.0050	mg/l	SW846 6010C
1,1-Dichloroethene	2.0		1.0	µg/l	SW846 8260C
cis-1,2-Dichloroethene	322	E	1.0	µg/l	SW846 8260C
Tetrachloroethene	85.5		1.0	µg/l	SW846 8260C
trans-1,2-Dichloroethene	1.0		1.0	µg/l	SW846 8260C
Trichloroethene	158	E	1.0	µg/l	SW846 8260C
Vinyl chloride	10.6		1.0	µg/l	SW846 8260C

Lab ID: SC26674-18RE1 **Client ID:** MW-53D/20161004

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
cis-1,2-Dichloroethene	374	D	10.0	µg/l	SW846 8260C
Tetrachloroethene	102	D	10.0	µg/l	SW846 8260C
Trichloroethene	190	D	10.0	µg/l	SW846 8260C

Lab ID: SC26674-19 **Client ID:** MW-51D/20161004

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Copper	0.0657		0.0050	mg/l	SW846 6010C
Nickel	0.0298		0.0050	mg/l	SW846 6010C
Zinc	0.0545		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	83.8		1.0	µg/l	SW846 8260C
Tert-Butanol / butyl alcohol	19.2		10.0	µg/l	SW846 8260C
Tetrachloroethene	29.6		1.0	µg/l	SW846 8260C
Trichloroethene	48.9		1.0	µg/l	SW846 8260C
Vinyl chloride	1.0		1.0	µg/l	SW846 8260C

Lab ID: SC26674-20 **Client ID:** MW-30/20161004

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Copper	0.0062		0.0050	mg/l	SW846 6010C
Nickel	0.0323		0.0050	mg/l	SW846 6010C
cis-1,2-Dichloroethene	493	D	5.0	µg/l	SW846 8260C
Tetrachloroethene	75.2	D	5.0	µg/l	SW846 8260C
Trichloroethene	204	D	5.0	µg/l	SW846 8260C
Vinyl chloride	44.2	D	5.0	µg/l	SW846 8260C

Lab ID: SC26674-21 **Client ID:** MW-31S/20161004

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium	0.0025		0.0025	mg/l	SW846 6010C
Chromium	0.0192		0.0050	mg/l	SW846 6010C
Copper	0.0112		0.0050	mg/l	SW846 6010C
Nickel	0.0200		0.0050	mg/l	SW846 6010C
Zinc	0.431		0.0050	mg/l	SW846 6010C
1,2,4-Trimethylbenzene	290	D	200	µg/l	SW846 8260C
4-Methyl-2-pentanone (MIBK)	2850	D	400	µg/l	SW846 8260C
cis-1,2-Dichloroethene	1790	D	200	µg/l	SW846 8260C
Ethylbenzene	2780	D	200	µg/l	SW846 8260C
m,p-Xylene	5960	D	400	µg/l	SW846 8260C
o-Xylene	2100	D	200	µg/l	SW846 8260C
Toluene	7920	D	200	µg/l	SW846 8260C

Lab ID: SC26674-22 **Client ID:** MW-31S/20161004 F

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Cadmium (dissolved)	0.0006		0.0025	mg/l	SW846 6010C
Chromium (dissolved)	0.0160		0.0050	mg/l	SW846 6010C
Nickel (dissolved)	0.0220		0.0050	mg/l	SW846 6010C
Zinc (dissolved)	0.0712		0.0050	mg/l	SW846 6010C

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB-20161003	08-14218I	Trip Blank	03-Oct-16 09:00	04-Oct-16
SC26674-01				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB-20161003	08-14218I	Trip Blank	03-Oct-16 09:00	04-Oct-16
SC26674-01				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*101*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
EB-20161003	08-14218I	Equipment Blank	03-Oct-16 12:00	04-Oct-16
SC26674-02				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
EB-20161003	08-14218I	Equipment Blank	03-Oct-16 12:00	04-Oct-16
SC26674-02				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*102*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97*			*70-130 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Filtration	**Field Filtered**		N/A			1	EPA 200.7/3005A/6010			BK	1617166	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
EB-20161003 SC26674-02	08-14218I	Equipment Blank	03-Oct-16 12:00	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.00055	R01	mg/l	0.00055	0.00002	1	SW846 6020A	07-Oct-16	11-Oct-16	edt	1617159	X
7440-43-9	Cadmium	**0.00002**	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.00440	R06	mg/l	0.00440	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	< 0.00500		mg/l	0.00500	0.00023	1	"	11-Oct-16	12-Oct-16	"	1617545	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DUP-20161003	08-14218I	Surface Water	03-Oct-16 00:00	04-Oct-16
SC26674-03				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DUP-20161003	08-14218I	Surface Water	03-Oct-16 00:00	04-Oct-16
SC26674-03				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*101*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97*			*70-130 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Filtration	**Field Filtered**		N/A			1	EPA 200.7/3005A/6010			BK	1617166	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DUP-20161003	08-14218I	Surface Water	03-Oct-16 00:00	04-Oct-16
SC26674-03				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.00055	R01	mg/l	0.00055	0.00002	1	SW846 6020A	07-Oct-16	11-Oct-16	edt	1617159	X
7440-43-9	Cadmium	**0.00007**	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.00440	R06	mg/l	0.00440	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	< 0.00500		mg/l	0.00500	0.00023	1	"	11-Oct-16	12-Oct-16	"	1617545	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-NR-1/20161003	08-14218I	Surface Water	03-Oct-16 09:30	04-Oct-16
SC26674-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-NR-1/20161003	08-14218I	Surface Water	03-Oct-16 09:30	04-Oct-16
SC26674-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*97*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*95*			*70-130 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Filtration	**Field Filtered**		N/A			1	EPA 200.7/3005A/6010			BK	1617166	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-NR-1/20161003	08-14218I	Surface Water	03-Oct-16 09:30	04-Oct-16
SC26674-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.00055	R01	mg/l	0.00055	0.00002	1	SW846 6020A	07-Oct-16	11-Oct-16	edt	1617159	X
7440-43-9	Cadmium	**0.00007**	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.00440	R06	mg/l	0.00440	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	< 0.00500		mg/l	0.00500	0.00023	1	"	11-Oct-16	12-Oct-16	"	1617545	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-NR-2/20161003	08-14218I	Surface Water	03-Oct-16 10:00	04-Oct-16
SC26674-05				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-NR-2/20161003	08-14218I	Surface Water	03-Oct-16 10:00	04-Oct-16
SC26674-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*97*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*100*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*96*			*70-130 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Filtration	**Field Filtered**		N/A			1	EPA 200.7/3005A/6010			BK	1617166	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-NR-2/20161003 SC26674-05	08-14218I	Surface Water	03-Oct-16 10:00	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.00055	R01	mg/l	0.00055	0.00002	1	SW846 6020A	07-Oct-16	11-Oct-16	edt	1617159	X
7440-43-9	Cadmium	**0.00006**	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.00440	R06	mg/l	0.00440	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	< 0.00500		mg/l	0.00500	0.00023	1	"	11-Oct-16	12-Oct-16	"	1617545	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-BB-1/20161003	08-14218I	Surface Water	03-Oct-16 11:00	04-Oct-16
SC26674-06				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-BB-1/20161003 SC26674-06	08-14218I	Surface Water	03-Oct-16 11:00	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*99*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97*			*70-130 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Filtration	**Field Filtered**		N/A			1	EPA 200.7/3005A/6010			BK	1617166	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-BB-1/20161003 SC26674-06	08-14218I	Surface Water	03-Oct-16 11:00	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.00055	R01	mg/l	0.00055	0.00002	1	SW846 6020A	07-Oct-16	11-Oct-16	edt	1617159	X
7440-43-9	Cadmium	**0.00004**	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.00440	R06	mg/l	0.00440	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	< 0.00500		mg/l	0.00500	0.00023	1	"	11-Oct-16	12-Oct-16	"	1617545	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-BB-2/20161003	08-14218I	Surface Water	03-Oct-16 11:30	04-Oct-16
SC26674-07				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-BB-2/20161003 SC26674-07	08-14218I	Surface Water	03-Oct-16 11:30	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*94*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*97*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97*			*70-130 %*			"	"	"	"	"	
Soluble Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Filtration	**Field Filtered**		N/A			1	EPA 200.7/3005A/6010			BK	1617166	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SW-BB-2/20161003 SC26674-07	08-14218I	Surface Water	03-Oct-16 11:30	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.00055	R01	mg/l	0.00055	0.00002	1	SW846 6020A	07-Oct-16	11-Oct-16	edt	1617159	X
7440-43-9	Cadmium	**0.00007**	J	mg/l	0.00025	0.000007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.00440	R06	mg/l	0.00440	0.00002	1	"	"	"	"	"	X
7440-66-6	Zinc	< 0.00500		mg/l	0.00500	0.00023	1	"	11-Oct-16	12-Oct-16	"	1617545	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-44D/20161003	08-14218I	Ground Water	03-Oct-16 14:27	04-Oct-16
SC26674-08				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**83.9**		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-44D/20161003	08-14218I	Ground Water	03-Oct-16 14:27	04-Oct-16
SC26674-08				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**24.0**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**54.2**		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	**5.7**		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*102*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-44D/20161003 SC26674-08	08-14218I	Ground Water	03-Oct-16 14:27	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	**0.0046**		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.0268**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.0342**		mg/l	0.0050	0.0021	1	"	"	"	"	"	X
7440-66-6	Zinc	**0.0388**		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-43S/20161003	08-14218I	Ground Water	03-Oct-16 15:00	04-Oct-16
SC26674-09				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**10.1**		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-43S/20161003	08-14218I	Ground Water	03-Oct-16 15:00	04-Oct-16
SC26674-09				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**9.6**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**10.1**		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*95*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*100*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-43S/20161003 SC26674-09	08-14218I	Ground Water	03-Oct-16 15:00	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	**0.0088**		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.0174**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.0122**		mg/l	0.0050	0.0021	1	"	"	"	"	"	X
7440-66-6	Zinc	**0.0126**		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-43D/20161003	08-14218I	Ground Water	03-Oct-16 14:20	04-Oct-16
SC26674-10				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**74.3**		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-43D/20161003	08-14218I	Ground Water	03-Oct-16 14:20	04-Oct-16
SC26674-10				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**21.0**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**45.6**		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	**3.2**		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*101*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-43D/20161003 SC26674-10	08-14218I	Ground Water	03-Oct-16 14:20	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	**0.0029**		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.473**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.140**		mg/l	0.0050	0.0021	1	"	"	"	"	"	X
7440-66-6	Zinc	**0.447**		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-42S/20161003	08-14218I	Ground Water	03-Oct-16 15:32	04-Oct-16
SC26674-11				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**11.4**		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-42S/20161003	08-14218I	Ground Water	03-Oct-16 15:32	04-Oct-16
SC26674-11				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**4.5**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**6.1**		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*101*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-42S/20161003 SC26674-11	08-14218I	Ground Water	03-Oct-16 15:32	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.0212**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.0296**		mg/l	0.0050	0.0021	1	"	"	11-Oct-16	"	"	X
7440-66-6	Zinc	**0.0868**		mg/l	0.0050	0.0024	1	"	"	10-Oct-16	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB-20161004	08-14218I	Trip Blank	04-Oct-16 09:00	04-Oct-16
SC26674-12				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB-20161004	08-14218I	Trip Blank	04-Oct-16 09:00	04-Oct-16
SC26674-12				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
EB/20161004	08-14218I	Equipment Blank	04-Oct-16 12:00	04-Oct-16
SC26674-13				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
EB/20161004	08-14218I	Equipment Blank	04-Oct-16 12:00	04-Oct-16
SC26674-13				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*106*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
EB/20161004 SC26674-13	08-14218I	Equipment Blank	04-Oct-16 12:00	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0021	1	"	"	"	"	"	X
7440-66-6	Zinc	< 0.0050		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DUP/20161004	08-14218I	Ground Water	04-Oct-16 00:00	04-Oct-16
SC26674-14				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**10.2**		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DUP/20161004	08-14218I	Ground Water	04-Oct-16 00:00	04-Oct-16
SC26674-14				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**2.6**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**4.7**		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*103*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*101*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DUP/20161004 SC26674-14	08-14218I	Ground Water	04-Oct-16 00:00	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0021	1	"	"	"	"	"	X
7440-66-6	Zinc	< 0.0050		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-41S/20161004	08-14218I	Ground Water	04-Oct-16 11:17	04-Oct-16
SC26674-15				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**8.1**		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-41S/20161004	08-14218I	Ground Water	04-Oct-16 11:17	04-Oct-16
SC26674-15				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**1.9**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**3.6**		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*102*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*96*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-41S/20161004 SC26674-15	08-14218I	Ground Water	04-Oct-16 11:17	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.0057**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0021	1	"	"	"	"	"	X
7440-66-6	Zinc	**0.0220**		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-41D/20161004	08-14218I	Ground Water	04-Oct-16 09:57	04-Oct-16
SC26674-16				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**10.5**		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-41D/20161004	08-14218I	Ground Water	04-Oct-16 09:57	04-Oct-16
SC26674-16				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**2.4**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**4.6**		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*99*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*95*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-41D/20161004 SC26674-16	08-14218I	Ground Water	04-Oct-16 09:57	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0021	1	"	"	"	"	"	X
7440-66-6	Zinc	< 0.0050		mg/l	0.0050	0.0024	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-50S/20161004	08-14218I	Ground Water	04-Oct-16 12:45	04-Oct-16
SC26674-17				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**39.9**		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-50S/20161004	08-14218I	Ground Water	04-Oct-16 12:45	04-Oct-16
SC26674-17				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	05-Oct-16	06-Oct-16	TS	1617128	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**8.3**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**15.2**		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*105*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-50S/20161004 SC26674-17	08-14218I	Ground Water	04-Oct-16 12:45	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.0065**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.0068**		mg/l	0.0050	0.0021	1	"	"	11-Oct-16	"	"	X
7440-66-6	Zinc	**0.116**		mg/l	0.0050	0.0024	1	"	"	10-Oct-16	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-53D/20161004	08-14218I	Ground Water	04-Oct-16 14:12	04-Oct-16
SC26674-18				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	**2.0**		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**322**	E	µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	**1.0**		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-53D/20161004 SC26674-18	08-14218I	Ground Water	04-Oct-16 14:12	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**85.5**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**158**	E	µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	**10.6**		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*106*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroetha ne (Freon 113)	< 10.0	D	µg/l	10.0	8.9	10	SW846 8260C	07-Oct-16	07-Oct-16	TS	1617310	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-53D/20161004	08-14218I	Ground Water	04-Oct-16 14:12	04-Oct-16
SC26674-18				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds by SW846 8260			GS1										
67-64-1	Acetone	< 100	D	µg/l	100	34.4	10	SW846 8260C	07-Oct-16	07-Oct-16	TS	1617310	X
107-13-1	Acrylonitrile	< 5.0	D	µg/l	5.0	4.7	10	"	"	"	"	"	X
71-43-2	Benzene	< 10.0	D	µg/l	10.0	2.8	10	"	"	"	"	"	X
108-86-1	Bromobenzene	< 10.0	D	µg/l	10.0	2.1	10	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 10.0	D	µg/l	10.0	5.3	10	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 5.0	D	µg/l	5.0	2.7	10	"	"	"	"	"	X
75-25-2	Bromoform	< 10.0	D	µg/l	10.0	3.6	10	"	"	"	"	"	X
74-83-9	Bromomethane	< 20.0	D	µg/l	20.0	9.0	10	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 20.0	D	µg/l	20.0	12.0	10	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 10.0	D	µg/l	10.0	2.8	10	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 10.0	D	µg/l	10.0	3.4	10	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 10.0	D	µg/l	10.0	3.0	10	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 20.0	D	µg/l	20.0	4.1	10	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 10.0	D	µg/l	10.0	6.0	10	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 10.0	D	µg/l	10.0	2.2	10	"	"	"	"	"	X
75-00-3	Chloroethane	< 20.0	D	µg/l	20.0	5.9	10	"	"	"	"	"	X
67-66-3	Chloroform	< 10.0	D	µg/l	10.0	4.1	10	"	"	"	"	"	X
74-87-3	Chloromethane	< 20.0	D	µg/l	20.0	4.0	10	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 10.0	D	µg/l	10.0	3.2	10	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 10.0	D	µg/l	10.0	2.6	10	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 20.0	D	µg/l	20.0	8.6	10	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 5.0	D	µg/l	5.0	2.2	10	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 5.0	D	µg/l	5.0	2.7	10	"	"	"	"	"	X
74-95-3	Dibromomethane	< 10.0	D	µg/l	10.0	1.9	10	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 10.0	D	µg/l	10.0	2.5	10	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 10.0	D	µg/l	10.0	2.1	10	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 10.0	D	µg/l	10.0	2.5	10	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 20.0	D	µg/l	20.0	8.3	10	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 10.0	D	µg/l	10.0	3.2	10	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 10.0	D	µg/l	10.0	2.9	10	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 10.0	D	µg/l	10.0	6.9	10	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**374**	D	µg/l	10.0	2.6	10	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 10.0	D	µg/l	10.0	3.2	10	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 10.0	D	µg/l	10.0	3.1	10	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 10.0	D	µg/l	10.0	2.2	10	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 10.0	D	µg/l	10.0	6.7	10	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 10.0	D	µg/l	10.0	4.8	10	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 5.0	D	µg/l	5.0	2.7	10	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 5.0	D	µg/l	5.0	4.9	10	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 10.0	D	µg/l	10.0	3.0	10	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 5.0	D	µg/l	5.0	4.3	10	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 20.0	D	µg/l	20.0	12.2	10	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 10.0	D	µg/l	10.0	3.6	10	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-53D/20161004	08-14218I	Ground Water	04-Oct-16 14:12	04-Oct-16
SC26674-18				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds by SW846 8260			GS1										
99-87-6	4-Isopropyltoluene	< 10.0	D	µg/l	10.0	4.1	10	SW846 8260C	07-Oct-16	07-Oct-16	TS	1617310	X
1634-04-4	Methyl tert-butyl ether	< 10.0	D	µg/l	10.0	2.8	10	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 20.0	D	µg/l	20.0	8.7	10	"	"	"	"	"	X
75-09-2	Methylene chloride	< 20.0	D	µg/l	20.0	7.9	10	"	"	"	"	"	X
91-20-3	Naphthalene	< 10.0	D	µg/l	10.0	3.5	10	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 10.0	D	µg/l	10.0	3.2	10	"	"	"	"	"	X
100-42-5	Styrene	< 10.0	D	µg/l	10.0	4.0	10	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 10.0	D	µg/l	10.0	5.9	10	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 5.0	D	µg/l	5.0	3.1	10	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**102**	D	µg/l	10.0	5.7	10	"	"	"	"	"	X
108-88-3	Toluene	< 10.0	D	µg/l	10.0	2.8	10	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 10.0	D	µg/l	10.0	4.9	10	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 10.0	D	µg/l	10.0	4.5	10	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 10.0	D	µg/l	10.0	2.8	10	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 10.0	D	µg/l	10.0	4.8	10	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 10.0	D	µg/l	10.0	3.6	10	"	"	"	"	"	X
79-01-6	Trichloroethene	**190**	D	µg/l	10.0	3.8	10	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 10.0	D	µg/l	10.0	6.1	10	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 10.0	D	µg/l	10.0	2.6	10	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 10.0	D	µg/l	10.0	2.7	10	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 10.0	D	µg/l	10.0	2.6	10	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 10.0	D	µg/l	10.0	5.1	10	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 20.0	D	µg/l	20.0	3.8	10	"	"	"	"	"	X
95-47-6	o-Xylene	< 10.0	D	µg/l	10.0	4.7	10	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 20.0	D	µg/l	20.0	10.6	10	"	"	"	"	"	
60-29-7	Ethyl ether	< 10.0	D	µg/l	10.0	4.3	10	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 10.0	D	µg/l	10.0	4.9	10	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 10.0	D	µg/l	10.0	2.4	10	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 10.0	D	µg/l	10.0	2.4	10	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 100	D	µg/l	100	59.8	10	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 200	D	µg/l	200	127	10	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 50.0	D	µg/l	50.0	31.1	10	"	"	"	"	"	X
64-17-5	Ethanol	< 2000	D	µg/l	2000	236	10	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*91*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*94*			*70-130 %*			"	"	"	"	"	
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-53D/20161004 SC26674-18	08-14218I	Ground Water	04-Oct-16 14:12	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	**0.0074**		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	**0.0078**		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.0173**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.0274**		mg/l	0.0050	0.0021	1	"	"	11-Oct-16	"	"	X
7440-66-6	Zinc	**0.0246**		mg/l	0.0050	0.0024	1	"	"	10-Oct-16	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-51D/20161004	08-14218I	Ground Water	04-Oct-16 09:30	04-Oct-16
SC26674-19				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.9	1	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
67-64-1	Acetone	< 10.0		µg/l	10.0	3.4	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.2	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**83.8**		µg/l	1.0	0.3	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.0		µg/l	2.0	1.2	1	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-51D/20161004	08-14218I	Ground Water	04-Oct-16 09:30	04-Oct-16
SC26674-19				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.4	1	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**29.6**		µg/l	1.0	0.6	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
79-01-6	Trichloroethene	**48.9**		µg/l	1.0	0.4	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	**1.0**		µg/l	1.0	0.5	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.2	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	**19.2**		µg/l	10.0	6.0	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	12.7	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	3.1	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	23.6	1	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*101*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*97*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-51D/20161004 SC26674-19	08-14218I	Ground Water	04-Oct-16 09:30	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.0657**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.0298**		mg/l	0.0050	0.0021	1	"	"	11-Oct-16	"	"	X
7440-66-6	Zinc	**0.0545**		mg/l	0.0050	0.0024	1	"	"	10-Oct-16	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-30/20161004	08-14218I	Ground Water	04-Oct-16 11:05	04-Oct-16
SC26674-20				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.0	D	µg/l	5.0	4.5	5	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
67-64-1	Acetone	< 50.0	D	µg/l	50.0	17.2	5	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 2.5	D	µg/l	2.5	2.3	5	"	"	"	"	"	X
71-43-2	Benzene	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
108-86-1	Bromobenzene	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 5.0	D	µg/l	5.0	2.6	5	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 2.5	D	µg/l	2.5	1.3	5	"	"	"	"	"	X
75-25-2	Bromoform	< 5.0	D	µg/l	5.0	1.8	5	"	"	"	"	"	X
74-83-9	Bromomethane	< 10.0	D	µg/l	10.0	4.5	5	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0	D	µg/l	10.0	6.0	5	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 5.0	D	µg/l	5.0	1.7	5	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 5.0	D	µg/l	5.0	1.5	5	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 10.0	D	µg/l	10.0	2.1	5	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 5.0	D	µg/l	5.0	3.0	5	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 5.0	D	µg/l	5.0	1.1	5	"	"	"	"	"	X
75-00-3	Chloroethane	< 10.0	D	µg/l	10.0	2.9	5	"	"	"	"	"	X
67-66-3	Chloroform	< 5.0	D	µg/l	5.0	2.0	5	"	"	"	"	"	X
74-87-3	Chloromethane	< 10.0	D	µg/l	10.0	2.0	5	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 5.0	D	µg/l	5.0	1.6	5	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0	D	µg/l	10.0	4.3	5	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 2.5	D	µg/l	2.5	1.1	5	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 2.5	D	µg/l	2.5	1.3	5	"	"	"	"	"	X
74-95-3	Dibromomethane	< 5.0	D	µg/l	5.0	0.9	5	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 5.0	D	µg/l	5.0	1.0	5	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	µg/l	10.0	4.2	5	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 5.0	D	µg/l	5.0	1.6	5	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 5.0	D	µg/l	5.0	3.5	5	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**493**	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 5.0	D	µg/l	5.0	1.6	5	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 5.0	D	µg/l	5.0	1.5	5	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 5.0	D	µg/l	5.0	1.1	5	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 5.0	D	µg/l	5.0	3.3	5	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 5.0	D	µg/l	5.0	2.4	5	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 2.5	D	µg/l	2.5	1.4	5	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 2.5	D	µg/l	2.5	2.5	5	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 5.0	D	µg/l	5.0	1.5	5	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 2.5	D	µg/l	2.5	2.2	5	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0	D	µg/l	10.0	6.1	5	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-30/20161004	08-14218I	Ground Water	04-Oct-16 11:05	04-Oct-16
SC26674-20				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260			GS1										
98-82-8	Isopropylbenzene	< 5.0	D	µg/l	5.0	1.8	5	SW846 8260C	06-Oct-16	06-Oct-16	GMA	1617230	X
99-87-6	4-Isopropyltoluene	< 5.0	D	µg/l	5.0	2.1	5	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0	D	µg/l	10.0	4.4	5	"	"	"	"	"	X
75-09-2	Methylene chloride	< 10.0	D	µg/l	10.0	3.9	5	"	"	"	"	"	X
91-20-3	Naphthalene	< 5.0	D	µg/l	5.0	1.7	5	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 5.0	D	µg/l	5.0	1.6	5	"	"	"	"	"	X
100-42-5	Styrene	< 5.0	D	µg/l	5.0	2.0	5	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 5.0	D	µg/l	5.0	2.9	5	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 2.5	D	µg/l	2.5	1.6	5	"	"	"	"	"	X
127-18-4	Tetrachloroethene	**75.2**	D	µg/l	5.0	2.8	5	"	"	"	"	"	X
108-88-3	Toluene	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 5.0	D	µg/l	5.0	2.5	5	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 5.0	D	µg/l	5.0	2.2	5	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 5.0	D	µg/l	5.0	1.4	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 5.0	D	µg/l	5.0	2.4	5	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 5.0	D	µg/l	5.0	1.8	5	"	"	"	"	"	X
79-01-6	Trichloroethene	**204**	D	µg/l	5.0	1.9	5	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.0	D	µg/l	5.0	3.1	5	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 5.0	D	µg/l	5.0	1.3	5	"	"	"	"	"	X
75-01-4	Vinyl chloride	**44.2**	D	µg/l	5.0	2.6	5	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 10.0	D	µg/l	10.0	1.9	5	"	"	"	"	"	X
95-47-6	o-Xylene	< 5.0	D	µg/l	5.0	2.4	5	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 10.0	D	µg/l	10.0	5.3	5	"	"	"	"	"	
60-29-7	Ethyl ether	< 5.0	D	µg/l	5.0	2.2	5	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 5.0	D	µg/l	5.0	2.5	5	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 5.0	D	µg/l	5.0	1.2	5	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 50.0	D	µg/l	50.0	29.9	5	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 100	D	µg/l	100	63.4	5	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0	D	µg/l	25.0	15.6	5	"	"	"	"	"	X
64-17-5	Ethanol	< 1000	D	µg/l	1000	118	5	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*96*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*98*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*102*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*99*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-30/20161004 SC26674-20	08-14218I	Ground Water	04-Oct-16 11:05	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.0062**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.0323**		mg/l	0.0050	0.0021	1	"	"	11-Oct-16	"	"	X
7440-66-6	Zinc	< 0.0050		mg/l	0.0050	0.0024	1	"	"	10-Oct-16	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-31S/20161004	08-14218I	Ground Water	04-Oct-16 13:00	04-Oct-16
SC26674-21				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 200	D	µg/l	200	178	200	SW846 8260C	07-Oct-16	07-Oct-16	TS	1617310	X
67-64-1	Acetone	< 2000	D	µg/l	2000	688	200	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 100	D	µg/l	100	93.2	200	"	"	"	"	"	X
71-43-2	Benzene	< 200	D	µg/l	200	56.8	200	"	"	"	"	"	X
108-86-1	Bromobenzene	< 200	D	µg/l	200	41.8	200	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 200	D	µg/l	200	106	200	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 100	D	µg/l	100	53.4	200	"	"	"	"	"	X
75-25-2	Bromoform	< 200	D	µg/l	200	72.8	200	"	"	"	"	"	X
74-83-9	Bromomethane	< 400	D	µg/l	400	179	200	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 400	D	µg/l	400	239	200	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 200	D	µg/l	200	56.4	200	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 200	D	µg/l	200	67.2	200	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 200	D	µg/l	200	60.0	200	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 400	D	µg/l	400	82.6	200	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 200	D	µg/l	200	120	200	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 200	D	µg/l	200	43.4	200	"	"	"	"	"	X
75-00-3	Chloroethane	< 400	D	µg/l	400	118	200	"	"	"	"	"	X
67-66-3	Chloroform	< 200	D	µg/l	200	81.4	200	"	"	"	"	"	X
74-87-3	Chloromethane	< 400	D	µg/l	400	80.6	200	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 200	D	µg/l	200	63.2	200	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 200	D	µg/l	200	51.6	200	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 400	D	µg/l	400	173	200	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 100	D	µg/l	100	44.6	200	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 100	D	µg/l	100	53.4	200	"	"	"	"	"	X
74-95-3	Dibromomethane	< 200	D	µg/l	200	37.8	200	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 200	D	µg/l	200	49.4	200	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 200	D	µg/l	200	41.2	200	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 200	D	µg/l	200	49.2	200	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 400	D	µg/l	400	166	200	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 200	D	µg/l	200	64.8	200	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 200	D	µg/l	200	57.4	200	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 200	D	µg/l	200	139	200	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	**1,790**	D	µg/l	200	51.4	200	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 200	D	µg/l	200	63.4	200	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 200	D	µg/l	200	61.8	200	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 200	D	µg/l	200	45.0	200	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 200	D	µg/l	200	134	200	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 200	D	µg/l	200	96.4	200	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 100	D	µg/l	100	54.6	200	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 100	D	µg/l	100	98.2	200	"	"	"	"	"	X
100-41-4	Ethylbenzene	**2,780**	D	µg/l	200	60.8	200	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 100	D	µg/l	100	86.6	200	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 400	D	µg/l	400	244	200	"	"	"	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-31S/20161004	08-14218I	Ground Water	04-Oct-16 13:00	04-Oct-16
SC26674-21				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260			GS1										
98-82-8	Isopropylbenzene	< 200	D	µg/l	200	72.0	200	SW846 8260C	07-Oct-16	07-Oct-16	TS	1617310	X
99-87-6	4-Isopropyltoluene	< 200	D	µg/l	200	82.2	200	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 200	D	µg/l	200	55.6	200	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	**2,850**	D	µg/l	400	174	200	"	"	"	"	"	X
75-09-2	Methylene chloride	< 400	D	µg/l	400	157	200	"	"	"	"	"	X
91-20-3	Naphthalene	< 200	D	µg/l	200	69.2	200	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 200	D	µg/l	200	63.4	200	"	"	"	"	"	X
100-42-5	Styrene	< 200	D	µg/l	200	80.4	200	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 200	D	µg/l	200	118	200	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 100	D	µg/l	100	62.0	200	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 200	D	µg/l	200	114	200	"	"	"	"	"	X
108-88-3	Toluene	**7,920**	D	µg/l	200	56.6	200	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 200	D	µg/l	200	98.2	200	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 200	D	µg/l	200	90.0	200	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 200	D	µg/l	200	55.6	200	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 200	D	µg/l	200	96.6	200	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 200	D	µg/l	200	72.8	200	"	"	"	"	"	X
79-01-6	Trichloroethene	< 200	D	µg/l	200	76.0	200	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 200	D	µg/l	200	122	200	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 200	D	µg/l	200	51.0	200	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	**290**	D	µg/l	200	53.4	200	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 200	D	µg/l	200	51.6	200	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 200	D	µg/l	200	103	200	"	"	"	"	"	X
179601-23-1	m,p-Xylene	**5,960**	D	µg/l	400	76.0	200	"	"	"	"	"	X
95-47-6	o-Xylene	**2,100**	D	µg/l	200	94.0	200	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 400	D	µg/l	400	212	200	"	"	"	"	"	
60-29-7	Ethyl ether	< 200	D	µg/l	200	86.0	200	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 200	D	µg/l	200	98.8	200	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 200	D	µg/l	200	48.2	200	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 200	D	µg/l	200	47.0	200	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 2000	D	µg/l	2000	1200	200	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 4000	D	µg/l	4000	2540	200	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 1000	D	µg/l	1000	622	200	"	"	"	"	"	X
64-17-5	Ethanol	< 40000	D	µg/l	40000	4730	200	"	"	"	"	"	X
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*91*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*95*			*70-130 %*			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Prepared by method General Prep-Metal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-31S/20161004 SC26674-21	08-14218I	Ground Water	04-Oct-16 13:00	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	05-Oct-16		BK	1617120	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617160	X
7440-43-9	Cadmium	**0.0025**		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	**0.0192**		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	**0.0112**		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.0200**		mg/l	0.0050	0.0021	1	"	"	11-Oct-16	"	"	X
7440-66-6	Zinc	**0.431**		mg/l	0.0050	0.0024	1	"	"	10-Oct-16	"	"	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-31S/20161004 F SC26674-22	08-14218I	Ground Water	04-Oct-16 13:00	04-Oct-16

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Soluble Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Filtration	**Field Filtered**		N/A			1	EPA 200.7/3005A/6010			BK	1617166	
Soluble Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3005A													
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0016	1	SW846 6010C	07-Oct-16	10-Oct-16	EDT	1617328	X
7440-43-9	Cadmium	**0.0006**		mg/l	0.0025	0.0002	1	"	"	"	"	"	X
7440-47-3	Chromium	**0.0160**		mg/l	0.0050	0.0007	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0012	1	"	"	"	"	"	X
7440-02-0	Nickel	**0.0220**		mg/l	0.0050	0.0021	1	"	"	"	"	"	X
7440-66-6	Zinc	**0.0712**		mg/l	0.0050	0.0024	1	"	"	11-Oct-16	"	"	X

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617128 - SW846 5030 Water MS										
Blank (1617128-BLK1)					Prepared & Analyzed: 05-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 2.0		µg/l	2.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 2.0		µg/l	2.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617128 - SW846 5030 Water MS										
Blank (1617128-BLK1)					Prepared & Analyzed: 05-Oct-16					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 200		µg/l	200						
Surrogate: 4-Bromofluorobenzene	*47.6*		µg/l		*50.0*		*95*	*70-130*		
Surrogate: Toluene-d8	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.2*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Dibromofluoromethane	*49.3*		µg/l		*50.0*		*99*	*70-130*		
LCS (1617128-BS1)					Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**14.4**		µg/l		20.0		72	70-130		
Acetone	**18.9**		µg/l		20.0		94	70-130		
Acrylonitrile	**19.4**		µg/l		20.0		97	70-130		
Benzene	**18.2**		µg/l		20.0		91	70-130		
Bromobenzene	**19.7**		µg/l		20.0		99	70-130		
Bromochloromethane	**19.9**		µg/l		20.0		100	70-130		
Bromodichloromethane	**19.2**		µg/l		20.0		96	70-130		
Bromoform	**19.1**		µg/l		20.0		96	70-130		
Bromomethane	**20.9**		µg/l		20.0		104	70-130		
2-Butanone (MEK)	**20.7**		µg/l		20.0		104	70-130		
n-Butylbenzene	**16.6**		µg/l		20.0		83	70-130		
sec-Butylbenzene	**18.8**		µg/l		20.0		94	70-130		
tert-Butylbenzene	**19.1**		µg/l		20.0		95	70-130		
Carbon disulfide	**16.6**		µg/l		20.0		83	70-130		
Carbon tetrachloride	**14.9**		µg/l		20.0		75	70-130		
Chlorobenzene	**18.9**		µg/l		20.0		94	70-130		
Chloroethane	**17.2**		µg/l		20.0		86	70-130		
Chloroform	**17.3**		µg/l		20.0		87	70-130		
Chloromethane	**16.8**		µg/l		20.0		84	70-130		
2-Chlorotoluene	**20.3**		µg/l		20.0		102	70-130		
4-Chlorotoluene	**19.3**		µg/l		20.0		97	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617128 - SW846 5030 Water MS										
LCS (1617128-BS1)					Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
1,2-Dibromo-3-chloropropane	**18.8**		µg/l		20.0		94	70-130		
Dibromochloromethane	**18.7**		µg/l		20.0		93	70-130		
1,2-Dibromoethane (EDB)	**19.9**		µg/l		20.0		100	70-130		
Dibromomethane	**19.4**		µg/l		20.0		97	70-130		
1,2-Dichlorobenzene	**19.1**		µg/l		20.0		95	70-130		
1,3-Dichlorobenzene	**19.3**		µg/l		20.0		96	70-130		
1,4-Dichlorobenzene	**18.1**		µg/l		20.0		90	70-130		
Dichlorodifluoromethane (Freon12)	**14.5**		µg/l		20.0		72	70-130		
1,1-Dichloroethane	**18.2**		µg/l		20.0		91	70-130		
1,2-Dichloroethane	**19.1**		µg/l		20.0		96	70-130		
1,1-Dichloroethene	**16.0**		µg/l		20.0		80	70-130		
cis-1,2-Dichloroethene	**18.8**		µg/l		20.0		94	70-130		
trans-1,2-Dichloroethene	**17.9**		µg/l		20.0		89	70-130		
1,2-Dichloropropane	**18.7**		µg/l		20.0		93	70-130		
1,3-Dichloropropane	**19.4**		µg/l		20.0		97	70-130		
2,2-Dichloropropane	**13.8**	QM9	µg/l		20.0		69	70-130		
1,1-Dichloropropene	**15.5**		µg/l		20.0		78	70-130		
cis-1,3-Dichloropropene	**18.2**		µg/l		20.0		91	70-130		
trans-1,3-Dichloropropene	**18.6**		µg/l		20.0		93	70-130		
Ethylbenzene	**18.4**		µg/l		20.0		92	70-130		
Hexachlorobutadiene	**17.7**		µg/l		20.0		89	70-130		
2-Hexanone (MBK)	**20.0**		µg/l		20.0		100	70-130		
Isopropylbenzene	**17.6**		µg/l		20.0		88	70-130		
4-Isopropyltoluene	**18.1**		µg/l		20.0		91	70-130		
Methyl tert-butyl ether	**18.7**		µg/l		20.0		94	70-130		
4-Methyl-2-pentanone (MIBK)	**21.2**		µg/l		20.0		106	70-130		
Methylene chloride	**18.8**		µg/l		20.0		94	70-130		
Naphthalene	**19.9**		µg/l		20.0		99	70-130		
n-Propylbenzene	**18.3**		µg/l		20.0		92	70-130		
Styrene	**20.2**		µg/l		20.0		101	70-130		
1,1,1,2-Tetrachloroethane	**19.8**		µg/l		20.0		99	70-130		
1,1,2,2-Tetrachloroethane	**20.8**		µg/l		20.0		104	70-130		
Tetrachloroethene	**16.1**		µg/l		20.0		80	70-130		
Toluene	**17.6**		µg/l		20.0		88	70-130		
1,2,3-Trichlorobenzene	**20.1**		µg/l		20.0		101	70-130		
1,2,4-Trichlorobenzene	**19.3**		µg/l		20.0		96	70-130		
1,3,5-Trichlorobenzene	**18.7**		µg/l		20.0		94	70-130		
1,1,1-Trichloroethane	**16.4**		µg/l		20.0		82	70-130		
1,1,2-Trichloroethane	**19.3**		µg/l		20.0		97	70-130		
Trichloroethene	**17.1**		µg/l		20.0		86	70-130		
Trichlorofluoromethane (Freon 11)	**14.7**		µg/l		20.0		74	70-130		
1,2,3-Trichloropropane	**20.6**		µg/l		20.0		103	70-130		
1,2,4-Trimethylbenzene	**18.2**		µg/l		20.0		91	70-130		
1,3,5-Trimethylbenzene	**17.8**		µg/l		20.0		89	70-130		
Vinyl chloride	**17.4**		µg/l		20.0		87	70-130		
m,p-Xylene	**19.6**		µg/l		20.0		98	70-130		
o-Xylene	**19.7**		µg/l		20.0		99	70-130		
Tetrahydrofuran	**19.7**		µg/l		20.0		99	70-130		
Ethyl ether	**20.2**		µg/l		20.0		101	70-130		
Tert-amyl methyl ether	**21.6**		µg/l		20.0		108	70-130		
Ethyl tert-butyl ether	**17.0**		µg/l		20.0		85	70-130		
Di-isopropyl ether	**19.2**		µg/l		20.0		96	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617128 - SW846 5030 Water MS										
LCS (1617128-BS1)					Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
Tert-Butanol / butyl alcohol	**156**		µg/l		200		78	70-130		
1,4-Dioxane	**129**	QM9	µg/l		200		65	70-130		
trans-1,4-Dichloro-2-butene	**23.7**		µg/l		20.0		118	70-130		
Ethanol	**335**		µg/l		400		84	70-130		
Surrogate: 4-Bromofluorobenzene	*50.8*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*48.9*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.0*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*49.3*		µg/l		*50.0*		*99*	*70-130*		
LCS Dup (1617128-BSD1)					Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**18.3**	QR5	µg/l		20.0		92	70-130	24	20
Acetone	**19.5**		µg/l		20.0		97	70-130	3	20
Acrylonitrile	**19.3**		µg/l		20.0		96	70-130	0.8	20
Benzene	**19.2**		µg/l		20.0		96	70-130	5	20
Bromobenzene	**19.6**		µg/l		20.0		98	70-130	0.9	20
Bromochloromethane	**19.8**		µg/l		20.0		99	70-130	0.8	20
Bromodichloromethane	**19.4**		µg/l		20.0		97	70-130	1	20
Bromoform	**18.9**		µg/l		20.0		95	70-130	1	20
Bromomethane	**22.5**		µg/l		20.0		112	70-130	7	20
2-Butanone (MEK)	**18.5**		µg/l		20.0		93	70-130	11	20
n-Butylbenzene	**18.6**		µg/l		20.0		93	70-130	11	20
sec-Butylbenzene	**20.6**		µg/l		20.0		103	70-130	9	20
tert-Butylbenzene	**20.7**		µg/l		20.0		103	70-130	8	20
Carbon disulfide	**19.2**		µg/l		20.0		96	70-130	15	20
Carbon tetrachloride	**17.9**		µg/l		20.0		90	70-130	18	20
Chlorobenzene	**19.1**		µg/l		20.0		95	70-130	1	20
Chloroethane	**19.5**		µg/l		20.0		97	70-130	12	20
Chloroform	**18.3**		µg/l		20.0		91	70-130	5	20
Chloromethane	**18.6**		µg/l		20.0		93	70-130	10	20
2-Chlorotoluene	**21.4**		µg/l		20.0		107	70-130	5	20
4-Chlorotoluene	**20.4**		µg/l		20.0		102	70-130	5	20
1,2-Dibromo-3-chloropropane	**19.1**		µg/l		20.0		95	70-130	1	20
Dibromochloromethane	**18.6**		µg/l		20.0		93	70-130	0.5	20
1,2-Dibromoethane (EDB)	**20.1**		µg/l		20.0		100	70-130	0.8	20
Dibromomethane	**19.2**		µg/l		20.0		96	70-130	1	20
1,2-Dichlorobenzene	**19.4**		µg/l		20.0		97	70-130	2	20
1,3-Dichlorobenzene	**19.6**		µg/l		20.0		98	70-130	2	20
1,4-Dichlorobenzene	**18.8**		µg/l		20.0		94	70-130	4	20
Dichlorodifluoromethane (Freon12)	**17.8**		µg/l		20.0		89	70-130	20	20
1,1-Dichloroethane	**19.6**		µg/l		20.0		98	70-130	8	20
1,2-Dichloroethane	**19.2**		µg/l		20.0		96	70-130	0.05	20
1,1-Dichloroethene	**19.5**		µg/l		20.0		98	70-130	20	20
cis-1,2-Dichloroethene	**19.5**		µg/l		20.0		97	70-130	4	20
trans-1,2-Dichloroethene	**19.7**		µg/l		20.0		99	70-130	10	20
1,2-Dichloropropane	**19.3**		µg/l		20.0		96	70-130	3	20
1,3-Dichloropropane	**19.5**		µg/l		20.0		98	70-130	0.7	20
2,2-Dichloropropane	**15.7**		µg/l		20.0		79	70-130	13	20
1,1-Dichloropropene	**18.8**		µg/l		20.0		94	70-130	19	20
cis-1,3-Dichloropropene	**18.7**		µg/l		20.0		94	70-130	2	20
trans-1,3-Dichloropropene	**18.9**		µg/l		20.0		94	70-130	2	20
Ethylbenzene	**20.0**		µg/l		20.0		100	70-130	9	20
Hexachlorobutadiene	**19.3**		µg/l		20.0		97	70-130	9	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617128 - SW846 5030 Water MS										
LCS Dup (1617128-BSD1)					Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
2-Hexanone (MBK)	**19.6**		µg/l		20.0		98	70-130	2	20
Isopropylbenzene	**19.1**		µg/l		20.0		96	70-130	8	20
4-Isopropyltoluene	**20.2**		µg/l		20.0		101	70-130	11	20
Methyl tert-butyl ether	**18.6**		µg/l		20.0		93	70-130	0.6	20
4-Methyl-2-pentanone (MIBK)	**20.9**		µg/l		20.0		105	70-130	1	20
Methylene chloride	**19.2**		µg/l		20.0		96	70-130	2	20
Naphthalene	**19.9**		µg/l		20.0		99	70-130	0	20
n-Propylbenzene	**20.2**		µg/l		20.0		101	70-130	10	20
Styrene	**20.2**		µg/l		20.0		101	70-130	0	20
1,1,1,2-Tetrachloroethane	**19.9**		µg/l		20.0		100	70-130	0.7	20
1,1,2,2-Tetrachloroethane	**20.2**		µg/l		20.0		101	70-130	3	20
Tetrachloroethene	**18.8**		µg/l		20.0		94	70-130	16	20
Toluene	**19.2**		µg/l		20.0		96	70-130	9	20
1,2,3-Trichlorobenzene	**20.3**		µg/l		20.0		101	70-130	0.8	20
1,2,4-Trichlorobenzene	**20.0**		µg/l		20.0		100	70-130	4	20
1,3,5-Trichlorobenzene	**19.6**		µg/l		20.0		98	70-130	5	20
1,1,1-Trichloroethane	**18.8**		µg/l		20.0		94	70-130	13	20
1,1,2-Trichloroethane	**19.4**		µg/l		20.0		97	70-130	0.1	20
Trichloroethene	**19.6**		µg/l		20.0		98	70-130	14	20
Trichlorofluoromethane (Freon 11)	**18.6**	QR5	µg/l		20.0		93	70-130	23	20
1,2,3-Trichloropropane	**20.3**		µg/l		20.0		102	70-130	1	20
1,2,4-Trimethylbenzene	**19.0**		µg/l		20.0		95	70-130	4	20
1,3,5-Trimethylbenzene	**18.9**		µg/l		20.0		94	70-130	6	20
Vinyl chloride	**19.8**		µg/l		20.0		99	70-130	13	20
m,p-Xylene	**20.5**		µg/l		20.0		103	70-130	5	20
o-Xylene	**20.7**		µg/l		20.0		104	70-130	5	20
Tetrahydrofuran	**19.4**		µg/l		20.0		97	70-130	2	20
Ethyl ether	**19.9**		µg/l		20.0		100	70-130	2	20
Tert-amyl methyl ether	**20.8**		µg/l		20.0		104	70-130	4	20
Ethyl tert-butyl ether	**17.6**		µg/l		20.0		88	70-130	4	20
Di-isopropyl ether	**19.4**		µg/l		20.0		97	70-130	0.6	20
Tert-Butanol / butyl alcohol	**166**		µg/l		200		83	70-130	6	20
1,4-Dioxane	**180**	QR5	µg/l		200		90	70-130	33	20
trans-1,4-Dichloro-2-butene	**22.8**		µg/l		20.0		114	70-130	4	20
Ethanol	**394**		µg/l		400		98	70-130	16	20
Surrogate: 4-Bromofluorobenzene	*51.0*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.4*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*49.4*		µg/l		*50.0*		*99*	*70-130*		
Matrix Spike (1617128-MS1)			**Source: SC26674-17**		Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.2**	D	µg/l		20.0	BRL	101	70-130		
Acetone	**16.6**	D	µg/l		20.0	BRL	83	70-130		
Acrylonitrile	**18.0**	D	µg/l		20.0	BRL	90	70-130		
Benzene	**18.3**	D	µg/l		20.0	BRL	92	70-130		
Bromobenzene	**20.0**	D	µg/l		20.0	BRL	100	70-130		
Bromochloromethane	**18.8**	D	µg/l		20.0	BRL	94	70-130		
Bromodichloromethane	**19.2**	D	µg/l		20.0	BRL	96	70-130		
Bromoform	**17.2**	D	µg/l		20.0	BRL	86	70-130		
Bromomethane	**21.4**	D	µg/l		20.0	BRL	107	70-130		
2-Butanone (MEK)	**18.2**	D	µg/l		20.0	BRL	91	70-130		
n-Butylbenzene	**19.6**	D	µg/l		20.0	BRL	98	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617128 - SW846 5030 Water MS										
Matrix Spike (1617128-MS1)			**Source: SC26674-17**		Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
sec-Butylbenzene	**21.6**	D	µg/l		20.0	BRL	108	70-130		
tert-Butylbenzene	**21.8**	D	µg/l		20.0	BRL	109	70-130		
Carbon disulfide	**17.9**	D	µg/l		20.0	BRL	89	70-130		
Carbon tetrachloride	**18.4**	D	µg/l		20.0	BRL	92	70-130		
Chlorobenzene	**19.0**	D	µg/l		20.0	BRL	95	70-130		
Chloroethane	**18.3**	D	µg/l		20.0	BRL	92	70-130		
Chloroform	**17.6**	D	µg/l		20.0	BRL	88	70-130		
Chloromethane	**16.2**	D	µg/l		20.0	BRL	81	70-130		
2-Chlorotoluene	**21.6**	D	µg/l		20.0	BRL	108	70-130		
4-Chlorotoluene	**20.1**	D	µg/l		20.0	BRL	100	70-130		
1,2-Dibromo-3-chloropropane	**18.8**	D	µg/l		20.0	BRL	94	70-130		
Dibromochloromethane	**18.0**	D	µg/l		20.0	BRL	90	70-130		
1,2-Dibromoethane (EDB)	**19.0**	D	µg/l		20.0	BRL	95	70-130		
Dibromomethane	**18.7**	D	µg/l		20.0	BRL	94	70-130		
1,2-Dichlorobenzene	**19.4**	D	µg/l		20.0	BRL	97	70-130		
1,3-Dichlorobenzene	**19.8**	D	µg/l		20.0	BRL	99	70-130		
1,4-Dichlorobenzene	**18.5**	D	µg/l		20.0	BRL	93	70-130		
Dichlorodifluoromethane (Freon12)	**16.5**	D	µg/l		20.0	BRL	82	70-130		
1,1-Dichloroethane	**18.7**	D	µg/l		20.0	BRL	94	70-130		
1,2-Dichloroethane	**18.2**	D	µg/l		20.0	BRL	91	70-130		
1,1-Dichloroethene	**19.5**	D	µg/l		20.0	0.06	97	70-130		
cis-1,2-Dichloroethene	**25.4**	D	µg/l		20.0	8.0	87	70-130		
trans-1,2-Dichloroethene	**18.6**	D	µg/l		20.0	BRL	93	70-130		
1,2-Dichloropropane	**18.5**	D	µg/l		20.0	BRL	92	70-130		
1,3-Dichloropropane	**18.6**	D	µg/l		20.0	BRL	93	70-130		
2,2-Dichloropropane	**16.4**	D	µg/l		20.0	BRL	82	70-130		
1,1-Dichloropropene	**19.2**	D	µg/l		20.0	BRL	96	70-130		
cis-1,3-Dichloropropene	**18.6**	D	µg/l		20.0	BRL	93	70-130		
trans-1,3-Dichloropropene	**18.8**	D	µg/l		20.0	BRL	94	70-130		
Ethylbenzene	**20.3**	D	µg/l		20.0	BRL	101	70-130		
Hexachlorobutadiene	**20.7**	D	µg/l		20.0	BRL	104	70-130		
2-Hexanone (MBK)	**18.5**	D	µg/l		20.0	BRL	92	70-130		
Isopropylbenzene	**19.6**	D	µg/l		20.0	BRL	98	70-130		
4-Isopropyltoluene	**21.2**	D	µg/l		20.0	BRL	106	70-130		
Methyl tert-butyl ether	**17.8**	D	µg/l		20.0	BRL	89	70-130		
4-Methyl-2-pentanone (MIBK)	**19.9**	D	µg/l		20.0	BRL	100	70-130		
Methylene chloride	**18.5**	D	µg/l		20.0	BRL	93	70-130		
Naphthalene	**19.3**	D	µg/l		20.0	BRL	97	70-130		
n-Propylbenzene	**20.9**	D	µg/l		20.0	BRL	105	70-130		
Styrene	**20.8**	D	µg/l		20.0	BRL	104	70-130		
1,1,1,2-Tetrachloroethane	**20.0**	D	µg/l		20.0	BRL	100	70-130		
1,1,2,2-Tetrachloroethane	**20.1**	D	µg/l		20.0	BRL	101	70-130		
Tetrachloroethene	**20.6**	D	µg/l		20.0	1.7	94	70-130		
Toluene	**18.7**	D	µg/l		20.0	BRL	94	70-130		
1,2,3-Trichlorobenzene	**20.5**	D	µg/l		20.0	BRL	102	70-130		
1,2,4-Trichlorobenzene	**21.0**	D	µg/l		20.0	BRL	105	70-130		
1,3,5-Trichlorobenzene	**20.1**	D	µg/l		20.0	BRL	100	70-130		
1,1,1-Trichloroethane	**19.0**	D	µg/l		20.0	BRL	95	70-130		
1,1,2-Trichloroethane	**18.6**	D	µg/l		20.0	BRL	93	70-130		
Trichloroethene	**21.7**	D	µg/l		20.0	3.0	93	70-130		
Trichlorofluoromethane (Freon 11)	**19.4**	D	µg/l		20.0	BRL	97	70-130		
1,2,3-Trichloropropane	**19.5**	D	µg/l		20.0	BRL	98	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617128 - SW846 5030 Water MS										
Matrix Spike (1617128-MS1)			**Source: SC26674-17**		Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
1,2,4-Trimethylbenzene	**19.6**	D	µg/l		20.0	BRL	98	70-130		
1,3,5-Trimethylbenzene	**19.8**	D	µg/l		20.0	BRL	99	70-130		
Vinyl chloride	**19.6**	D	µg/l		20.0	0.2	97	70-130		
m,p-Xylene	**20.9**	D	µg/l		20.0	BRL	105	70-130		
o-Xylene	**20.5**	D	µg/l		20.0	BRL	102	70-130		
Tetrahydrofuran	**18.7**	D	µg/l		20.0	0.2	92	70-130		
Ethyl ether	**18.5**	D	µg/l		20.0	BRL	92	70-130		
Tert-amyl methyl ether	**20.3**	D	µg/l		20.0	BRL	102	70-130		
Ethyl tert-butyl ether	**16.6**	D	µg/l		20.0	BRL	83	70-130		
Di-isopropyl ether	**18.8**	D	µg/l		20.0	BRL	94	70-130		
Tert-Butanol / butyl alcohol	**149**	D	µg/l		200	0.2	74	70-130		
1,4-Dioxane	**135**	QM7, D	µg/l		200	BRL	68	70-130		
trans-1,4-Dichloro-2-butene	**23.3**	D	µg/l		20.0	BRL	117	70-130		
Ethanol	**315**	D	µg/l		400	1.3	78	70-130		
Surrogate: 4-Bromofluorobenzene	*50.9*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*49.6*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*48.4*		µg/l		*50.0*		*97*	*70-130*		
Surrogate: Dibromofluoromethane	*49.2*		µg/l		*50.0*		*98*	*70-130*		
Matrix Spike Dup (1617128-MSD1)			**Source: SC26674-17**		Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.1**	D	µg/l		20.0	BRL	105	70-130	4	20
Acetone	**18.7**	D	µg/l		20.0	BRL	93	70-130	12	20
Acrylonitrile	**18.6**	D	µg/l		20.0	BRL	93	70-130	3	20
Benzene	**19.2**	D	µg/l		20.0	BRL	96	70-130	5	20
Bromobenzene	**19.8**	D	µg/l		20.0	BRL	99	70-130	0.8	20
Bromochloromethane	**18.6**	D	µg/l		20.0	BRL	93	70-130	1	20
Bromodichloromethane	**19.6**	D	µg/l		20.0	BRL	98	70-130	2	20
Bromoform	**18.8**	D	µg/l		20.0	BRL	94	70-130	9	20
Bromomethane	**21.6**	D	µg/l		20.0	BRL	108	70-130	0.7	20
2-Butanone (MEK)	**18.9**	D	µg/l		20.0	BRL	94	70-130	4	20
n-Butylbenzene	**20.2**	D	µg/l		20.0	BRL	101	70-130	3	20
sec-Butylbenzene	**22.0**	D	µg/l		20.0	BRL	110	70-130	2	20
tert-Butylbenzene	**22.3**	D	µg/l		20.0	BRL	112	70-130	2	20
Carbon disulfide	**18.5**	D	µg/l		20.0	BRL	92	70-130	3	20
Carbon tetrachloride	**19.7**	D	µg/l		20.0	BRL	98	70-130	7	20
Chlorobenzene	**19.3**	D	µg/l		20.0	BRL	96	70-130	1	20
Chloroethane	**18.9**	D	µg/l		20.0	BRL	94	70-130	3	20
Chloroform	**18.0**	D	µg/l		20.0	BRL	90	70-130	2	20
Chloromethane	**17.0**	D	µg/l		20.0	BRL	85	70-130	4	20
2-Chlorotoluene	**21.8**	D	µg/l		20.0	BRL	109	70-130	1	20
4-Chlorotoluene	**20.7**	D	µg/l		20.0	BRL	104	70-130	3	20
1,2-Dibromo-3-chloropropane	**18.9**	D	µg/l		20.0	BRL	94	70-130	0.2	20
Dibromochloromethane	**18.3**	D	µg/l		20.0	BRL	92	70-130	2	20
1,2-Dibromoethane (EDB)	**19.4**	D	µg/l		20.0	BRL	97	70-130	2	20
Dibromomethane	**19.1**	D	µg/l		20.0	BRL	96	70-130	2	20
1,2-Dichlorobenzene	**20.0**	D	µg/l		20.0	BRL	100	70-130	3	20
1,3-Dichlorobenzene	**20.1**	D	µg/l		20.0	BRL	101	70-130	2	20
1,4-Dichlorobenzene	**18.6**	D	µg/l		20.0	BRL	93	70-130	0.5	20
Dichlorodifluoromethane (Freon12)	**17.6**	D	µg/l		20.0	BRL	88	70-130	6	20
1,1-Dichloroethane	**19.2**	D	µg/l		20.0	BRL	96	70-130	3	20
1,2-Dichloroethane	**18.0**	D	µg/l		20.0	BRL	90	70-130	0.6	20
1,1-Dichloroethene	**19.7**	D	µg/l		20.0	0.06	98	70-130	1	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617128 - SW846 5030 Water MS										
Matrix Spike Dup (1617128-MSD1)			**Source: SC26674-17**		Prepared: 05-Oct-16 Analyzed: 06-Oct-16					
cis-1,2-Dichloroethene	**26.5**	D	µg/l		20.0	8.0	92	70-130	4	20
trans-1,2-Dichloroethene	**19.1**	D	µg/l		20.0	BRL	96	70-130	3	20
1,2-Dichloropropane	**19.0**	D	µg/l		20.0	BRL	95	70-130	3	20
1,3-Dichloropropane	**18.9**	D	µg/l		20.0	BRL	95	70-130	2	20
2,2-Dichloropropane	**16.5**	D	µg/l		20.0	BRL	83	70-130	0.9	20
1,1-Dichloropropene	**20.1**	D	µg/l		20.0	BRL	100	70-130	5	20
cis-1,3-Dichloropropene	**18.8**	D	µg/l		20.0	BRL	94	70-130	1	20
trans-1,3-Dichloropropene	**18.8**	D	µg/l		20.0	BRL	94	70-130	0.4	20
Ethylbenzene	**20.6**	D	µg/l		20.0	BRL	103	70-130	2	20
Hexachlorobutadiene	**21.2**	D	µg/l		20.0	BRL	106	70-130	2	20
2-Hexanone (MBK)	**19.5**	D	µg/l		20.0	BRL	98	70-130	5	20
Isopropylbenzene	**20.3**	D	µg/l		20.0	BRL	101	70-130	3	20
4-Isopropyltoluene	**21.5**	D	µg/l		20.0	BRL	108	70-130	2	20
Methyl tert-butyl ether	**18.2**	D	µg/l		20.0	BRL	91	70-130	3	20
4-Methyl-2-pentanone (MIBK)	**20.5**	D	µg/l		20.0	BRL	102	70-130	3	20
Methylene chloride	**19.0**	D	µg/l		20.0	BRL	95	70-130	2	20
Naphthalene	**19.9**	D	µg/l		20.0	BRL	100	70-130	3	20
n-Propylbenzene	**21.2**	D	µg/l		20.0	BRL	106	70-130	1	20
Styrene	**21.3**	D	µg/l		20.0	BRL	107	70-130	3	20
1,1,1,2-Tetrachloroethane	**20.1**	D	µg/l		20.0	BRL	100	70-130	0.5	20
1,1,2,2-Tetrachloroethane	**20.0**	D	µg/l		20.0	BRL	100	70-130	0.8	20
Tetrachloroethene	**21.9**	D	µg/l		20.0	1.7	101	70-130	6	20
Toluene	**19.3**	D	µg/l		20.0	BRL	97	70-130	3	20
1,2,3-Trichlorobenzene	**20.9**	D	µg/l		20.0	BRL	104	70-130	2	20
1,2,4-Trichlorobenzene	**20.8**	D	µg/l		20.0	BRL	104	70-130	0.9	20
1,3,5-Trichlorobenzene	**20.3**	D	µg/l		20.0	BRL	101	70-130	1	20
1,1,1-Trichloroethane	**20.0**	D	µg/l		20.0	BRL	100	70-130	5	20
1,1,2-Trichloroethane	**18.9**	D	µg/l		20.0	BRL	94	70-130	1	20
Trichloroethene	**22.5**	D	µg/l		20.0	3.0	97	70-130	4	20
Trichlorofluoromethane (Freon 11)	**20.4**	D	µg/l		20.0	BRL	102	70-130	5	20
1,2,3-Trichloropropane	**19.6**	D	µg/l		20.0	BRL	98	70-130	0.5	20
1,2,4-Trimethylbenzene	**20.0**	D	µg/l		20.0	BRL	100	70-130	2	20
1,3,5-Trimethylbenzene	**20.2**	D	µg/l		20.0	BRL	101	70-130	2	20
Vinyl chloride	**19.8**	D	µg/l		20.0	0.2	98	70-130	0.8	20
m,p-Xylene	**21.3**	D	µg/l		20.0	BRL	106	70-130	2	20
o-Xylene	**20.6**	D	µg/l		20.0	BRL	103	70-130	0.3	20
Tetrahydrofuran	**19.0**	D	µg/l		20.0	0.2	94	70-130	2	20
Ethyl ether	**18.6**	D	µg/l		20.0	BRL	93	70-130	0.5	20
Tert-amyl methyl ether	**20.5**	D	µg/l		20.0	BRL	102	70-130	0.9	20
Ethyl tert-butyl ether	**17.1**	D	µg/l		20.0	BRL	85	70-130	2	20
Di-isopropyl ether	**19.2**	D	µg/l		20.0	BRL	96	70-130	2	20
Tert-Butanol / butyl alcohol	**160**	D	µg/l		200	0.2	80	70-130	8	20
1,4-Dioxane	**178**	QR5, D	µg/l		200	BRL	89	70-130	28	20
trans-1,4-Dichloro-2-butene	**23.4**	D	µg/l		20.0	BRL	117	70-130	0.4	20
Ethanol	**384**	D	µg/l		400	1.3	96	70-130	20	20
Surrogate: 4-Bromofluorobenzene	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.2*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Dibromofluoromethane	*49.2*		µg/l		*50.0*		*98*	*70-130*		
Batch 1617230 - SW846 5030 Water MS										
Blank (1617230-BLK1)					Prepared & Analyzed: 06-Oct-16					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617230 - SW846 5030 Water MS										
Blank (1617230-BLK1)					Prepared & Analyzed: 06-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 2.0		µg/l	2.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 2.0		µg/l	2.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617230 - SW846 5030 Water MS										
Blank (1617230-BLK1)					Prepared & Analyzed: 06-Oct-16					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 200		µg/l	200						
Surrogate: 4-Bromofluorobenzene	*48.2*		µg/l		*50.0*		*96*	*70-130*		
Surrogate: Toluene-d8	*48.0*		µg/l		*50.0*		*96*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.9*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Dibromofluoromethane	*48.5*		µg/l		*50.0*		*97*	*70-130*		
LCS (1617230-BS1)					Prepared & Analyzed: 06-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**15.2**		µg/l		20.0		76	70-130		
Acetone	**19.2**		µg/l		20.0		96	70-130		
Acrylonitrile	**20.1**		µg/l		20.0		101	70-130		
Benzene	**19.2**		µg/l		20.0		96	70-130		
Bromobenzene	**19.8**		µg/l		20.0		99	70-130		
Bromochloromethane	**19.1**		µg/l		20.0		95	70-130		
Bromodichloromethane	**19.5**		µg/l		20.0		98	70-130		
Bromoform	**19.4**		µg/l		20.0		97	70-130		
Bromomethane	**19.2**		µg/l		20.0		96	70-130		
2-Butanone (MEK)	**19.1**		µg/l		20.0		96	70-130		
n-Butylbenzene	**17.4**		µg/l		20.0		87	70-130		
sec-Butylbenzene	**19.2**		µg/l		20.0		96	70-130		
tert-Butylbenzene	**19.6**		µg/l		20.0		98	70-130		
Carbon disulfide	**16.6**		µg/l		20.0		83	70-130		
Carbon tetrachloride	**15.6**		µg/l		20.0		78	70-130		
Chlorobenzene	**19.2**		µg/l		20.0		96	70-130		
Chloroethane	**17.8**		µg/l		20.0		89	70-130		
Chloroform	**18.3**		µg/l		20.0		92	70-130		
Chloromethane	**17.3**		µg/l		20.0		86	70-130		
2-Chlorotoluene	**17.1**		µg/l		20.0		86	70-130		
4-Chlorotoluene	**20.0**		µg/l		20.0		100	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617230 - SW846 5030 Water MS										
LCS (1617230-BS1)					Prepared & Analyzed: 06-Oct-16					
1,2-Dibromo-3-chloropropane	**19.9**		µg/l		20.0		100	70-130		
Dibromochloromethane	**18.4**		µg/l		20.0		92	70-130		
1,2-Dibromoethane (EDB)	**20.2**		µg/l		20.0		101	70-130		
Dibromomethane	**19.5**		µg/l		20.0		97	70-130		
1,2-Dichlorobenzene	**19.1**		µg/l		20.0		96	70-130		
1,3-Dichlorobenzene	**19.8**		µg/l		20.0		99	70-130		
1,4-Dichlorobenzene	**18.3**		µg/l		20.0		91	70-130		
Dichlorodifluoromethane (Freon12)	**15.0**		µg/l		20.0		75	70-130		
1,1-Dichloroethane	**18.9**		µg/l		20.0		95	70-130		
1,2-Dichloroethane	**19.7**		µg/l		20.0		98	70-130		
1,1-Dichloroethene	**16.8**		µg/l		20.0		84	70-130		
cis-1,2-Dichloroethene	**18.4**		µg/l		20.0		92	70-130		
trans-1,2-Dichloroethene	**18.2**		µg/l		20.0		91	70-130		
1,2-Dichloropropane	**18.8**		µg/l		20.0		94	70-130		
1,3-Dichloropropane	**19.3**		µg/l		20.0		97	70-130		
2,2-Dichloropropane	**15.5**		µg/l		20.0		77	70-130		
1,1-Dichloropropene	**16.7**		µg/l		20.0		84	70-130		
cis-1,3-Dichloropropene	**18.5**		µg/l		20.0		92	70-130		
trans-1,3-Dichloropropene	**18.4**		µg/l		20.0		92	70-130		
Ethylbenzene	**19.1**		µg/l		20.0		96	70-130		
Hexachlorobutadiene	**18.1**		µg/l		20.0		90	70-130		
2-Hexanone (MBK)	**20.8**		µg/l		20.0		104	70-130		
Isopropylbenzene	**18.3**		µg/l		20.0		92	70-130		
4-Isopropyltoluene	**18.8**		µg/l		20.0		94	70-130		
Methyl tert-butyl ether	**17.3**		µg/l		20.0		86	70-130		
4-Methyl-2-pentanone (MIBK)	**21.8**		µg/l		20.0		109	70-130		
Methylene chloride	**18.7**		µg/l		20.0		94	70-130		
Naphthalene	**19.6**		µg/l		20.0		98	70-130		
n-Propylbenzene	**19.0**		µg/l		20.0		95	70-130		
Styrene	**20.5**		µg/l		20.0		102	70-130		
1,1,1,2-Tetrachloroethane	**20.2**		µg/l		20.0		101	70-130		
1,1,2,2-Tetrachloroethane	**21.0**		µg/l		20.0		105	70-130		
Tetrachloroethene	**17.0**		µg/l		20.0		85	70-130		
Toluene	**18.7**		µg/l		20.0		94	70-130		
1,2,3-Trichlorobenzene	**19.5**		µg/l		20.0		98	70-130		
1,2,4-Trichlorobenzene	**19.7**		µg/l		20.0		99	70-130		
1,3,5-Trichlorobenzene	**18.8**		µg/l		20.0		94	70-130		
1,1,1-Trichloroethane	**17.0**		µg/l		20.0		85	70-130		
1,1,2-Trichloroethane	**19.6**		µg/l		20.0		98	70-130		
Trichloroethene	**18.0**		µg/l		20.0		90	70-130		
Trichlorofluoromethane (Freon 11)	**15.8**		µg/l		20.0		79	70-130		
1,2,3-Trichloropropane	**20.7**		µg/l		20.0		103	70-130		
1,2,4-Trimethylbenzene	**19.0**		µg/l		20.0		95	70-130		
1,3,5-Trimethylbenzene	**18.4**		µg/l		20.0		92	70-130		
Vinyl chloride	**17.9**		µg/l		20.0		90	70-130		
m,p-Xylene	**20.1**		µg/l		20.0		101	70-130		
o-Xylene	**20.1**		µg/l		20.0		101	70-130		
Tetrahydrofuran	**21.2**		µg/l		20.0		106	70-130		
Ethyl ether	**19.0**		µg/l		20.0		95	70-130		
Tert-amyl methyl ether	**22.4**		µg/l		20.0		112	70-130		
Ethyl tert-butyl ether	**15.7**		µg/l		20.0		79	70-130		
Di-isopropyl ether	**18.8**		µg/l		20.0		94	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617230 - SW846 5030 Water MS										
LCS (1617230-BS1)					Prepared & Analyzed: 06-Oct-16					
Tert-Butanol / butyl alcohol	**178**		µg/l		200		89	70-130		
1,4-Dioxane	**177**		µg/l		200		88	70-130		
trans-1,4-Dichloro-2-butene	**25.5**		µg/l		20.0		127	70-130		
Ethanol	**414**		µg/l		400		103	70-130		
Surrogate: 4-Bromofluorobenzene	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*50.2*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*49.1*		µg/l		*50.0*		*98*	*70-130*		
LCS Dup (1617230-BSD1)					Prepared & Analyzed: 06-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**19.4**	QR2	µg/l		20.0		97	70-130	24	20
Acetone	**20.4**		µg/l		20.0		102	70-130	6	20
Acrylonitrile	**19.9**		µg/l		20.0		99	70-130	1	20
Benzene	**19.2**		µg/l		20.0		96	70-130	0.2	20
Bromobenzene	**19.6**		µg/l		20.0		98	70-130	1	20
Bromochloromethane	**18.6**		µg/l		20.0		93	70-130	3	20
Bromodichloromethane	**19.5**		µg/l		20.0		98	70-130	0.05	20
Bromoform	**19.2**		µg/l		20.0		96	70-130	0.9	20
Bromomethane	**20.4**		µg/l		20.0		102	70-130	6	20
2-Butanone (MEK)	**19.7**		µg/l		20.0		98	70-130	3	20
n-Butylbenzene	**18.4**		µg/l		20.0		92	70-130	5	20
sec-Butylbenzene	**20.4**		µg/l		20.0		102	70-130	6	20
tert-Butylbenzene	**20.6**		µg/l		20.0		103	70-130	5	20
Carbon disulfide	**18.7**		µg/l		20.0		94	70-130	12	20
Carbon tetrachloride	**18.3**		µg/l		20.0		91	70-130	16	20
Chlorobenzene	**18.8**		µg/l		20.0		94	70-130	2	20
Chloroethane	**18.5**		µg/l		20.0		93	70-130	4	20
Chloroform	**17.7**		µg/l		20.0		89	70-130	3	20
Chloromethane	**17.3**		µg/l		20.0		87	70-130	0.3	20
2-Chlorotoluene	**22.0**	QR2	µg/l		20.0		110	70-130	25	20
4-Chlorotoluene	**19.8**		µg/l		20.0		99	70-130	1	20
1,2-Dibromo-3-chloropropane	**20.2**		µg/l		20.0		101	70-130	2	20
Dibromochloromethane	**18.7**		µg/l		20.0		93	70-130	1	20
1,2-Dibromoethane (EDB)	**19.7**		µg/l		20.0		98	70-130	3	20
Dibromomethane	**19.5**		µg/l		20.0		98	70-130	0.4	20
1,2-Dichlorobenzene	**19.2**		µg/l		20.0		96	70-130	0.5	20
1,3-Dichlorobenzene	**19.3**		µg/l		20.0		97	70-130	3	20
1,4-Dichlorobenzene	**18.4**		µg/l		20.0		92	70-130	0.9	20
Dichlorodifluoromethane (Freon12)	**18.5**	QR2	µg/l		20.0		92	70-130	21	20
1,1-Dichloroethane	**18.9**		µg/l		20.0		95	70-130	0.1	20
1,2-Dichloroethane	**19.0**		µg/l		20.0		95	70-130	3	20
1,1-Dichloroethene	**19.4**		µg/l		20.0		97	70-130	15	20
cis-1,2-Dichloroethene	**18.2**		µg/l		20.0		91	70-130	1	20
trans-1,2-Dichloroethene	**19.1**		µg/l		20.0		96	70-130	5	20
1,2-Dichloropropane	**18.8**		µg/l		20.0		94	70-130	0	20
1,3-Dichloropropane	**19.2**		µg/l		20.0		96	70-130	0.7	20
2,2-Dichloropropane	**17.3**		µg/l		20.0		86	70-130	11	20
1,1-Dichloropropene	**18.9**		µg/l		20.0		95	70-130	13	20
cis-1,3-Dichloropropene	**18.6**		µg/l		20.0		93	70-130	0.8	20
trans-1,3-Dichloropropene	**18.6**		µg/l		20.0		93	70-130	0.9	20
Ethylbenzene	**19.8**		µg/l		20.0		99	70-130	3	20
Hexachlorobutadiene	**19.2**		µg/l		20.0		96	70-130	6	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617230 - SW846 5030 Water MS										
LCS Dup (1617230-BSD1)					Prepared & Analyzed: 06-Oct-16					
2-Hexanone (MBK)	**20.8**		µg/l		20.0		104	70-130	0.4	20
Isopropylbenzene	**19.0**		µg/l		20.0		95	70-130	3	20
4-Isopropyltoluene	**20.0**		µg/l		20.0		100	70-130	6	20
Methyl tert-butyl ether	**17.8**		µg/l		20.0		89	70-130	3	20
4-Methyl-2-pentanone (MIBK)	**22.3**		µg/l		20.0		111	70-130	2	20
Methylene chloride	**19.1**		µg/l		20.0		96	70-130	2	20
Naphthalene	**19.9**		µg/l		20.0		99	70-130	1	20
n-Propylbenzene	**19.3**		µg/l		20.0		96	70-130	1	20
Styrene	**19.7**		µg/l		20.0		99	70-130	4	20
1,1,1,2-Tetrachloroethane	**19.7**		µg/l		20.0		99	70-130	2	20
1,1,2,2-Tetrachloroethane	**20.9**		µg/l		20.0		104	70-130	0.8	20
Tetrachloroethene	**19.2**		µg/l		20.0		96	70-130	12	20
Toluene	**18.7**		µg/l		20.0		93	70-130	0.4	20
1,2,3-Trichlorobenzene	**19.8**		µg/l		20.0		99	70-130	1	20
1,2,4-Trichlorobenzene	**19.7**		µg/l		20.0		98	70-130	0.4	20
1,3,5-Trichlorobenzene	**19.2**		µg/l		20.0		96	70-130	2	20
1,1,1-Trichloroethane	**18.9**		µg/l		20.0		94	70-130	11	20
1,1,2-Trichloroethane	**19.4**		µg/l		20.0		97	70-130	0.8	20
Trichloroethene	**18.7**		µg/l		20.0		94	70-130	4	20
Trichlorofluoromethane (Freon 11)	**19.8**	QR2	µg/l		20.0		99	70-130	22	20
1,2,3-Trichloropropane	**20.5**		µg/l		20.0		103	70-130	0.7	20
1,2,4-Trimethylbenzene	**18.4**		µg/l		20.0		92	70-130	3	20
1,3,5-Trimethylbenzene	**18.2**		µg/l		20.0		91	70-130	0.8	20
Vinyl chloride	**19.7**		µg/l		20.0		98	70-130	9	20
m,p-Xylene	**19.8**		µg/l		20.0		99	70-130	1	20
o-Xylene	**19.9**		µg/l		20.0		100	70-130	1	20
Tetrahydrofuran	**20.6**		µg/l		20.0		103	70-130	2	20
Ethyl ether	**19.6**		µg/l		20.0		98	70-130	3	20
Tert-amyl methyl ether	**22.0**		µg/l		20.0		110	70-130	2	20
Ethyl tert-butyl ether	**15.8**		µg/l		20.0		79	70-130	0.6	20
Di-isopropyl ether	**18.8**		µg/l		20.0		94	70-130	0.2	20
Tert-Butanol / butyl alcohol	**182**		µg/l		200		91	70-130	2	20
1,4-Dioxane	**179**		µg/l		200		90	70-130	1	20
trans-1,4-Dichloro-2-butene	**26.3**	QM9	µg/l		20.0		131	70-130	3	20
Ethanol	**398**		µg/l		400		99	70-130	4	20
Surrogate: 4-Bromofluorobenzene	*50.1*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*49.6*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.0*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*49.2*		µg/l		*50.0*		*98*	*70-130*		
Matrix Spike (1617230-MS1)			**Source: SC26674-20**		Prepared & Analyzed: 06-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.5**	D	µg/l		20.0	BRL	108	70-130		
Acetone	**19.6**	D	µg/l		20.0	BRL	98	70-130		
Acrylonitrile	**18.8**	D	µg/l		20.0	BRL	94	70-130		
Benzene	**20.5**	D	µg/l		20.0	0.4	100	70-130		
Bromobenzene	**20.1**	D	µg/l		20.0	BRL	100	70-130		
Bromochloromethane	**19.8**	D	µg/l		20.0	BRL	99	70-130		
Bromodichloromethane	**19.4**	D	µg/l		20.0	BRL	97	70-130		
Bromoform	**20.0**	D	µg/l		20.0	BRL	100	70-130		
Bromomethane	**19.6**	D	µg/l		20.0	BRL	98	70-130		
2-Butanone (MEK)	**18.4**	D	µg/l		20.0	BRL	92	70-130		
n-Butylbenzene	**20.0**	D	µg/l		20.0	BRL	100	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617230 - SW846 5030 Water MS										
Matrix Spike (1617230-MS1)			**Source: SC26674-20**		Prepared & Analyzed: 06-Oct-16					
sec-Butylbenzene	**22.6**	D	µg/l		20.0	BRL	113	70-130		
tert-Butylbenzene	**22.4**	D	µg/l		20.0	BRL	112	70-130		
Carbon disulfide	**19.5**	D	µg/l		20.0	BRL	98	70-130		
Carbon tetrachloride	**20.0**	D	µg/l		20.0	BRL	100	70-130		
Chlorobenzene	**19.7**	D	µg/l		20.0	BRL	98	70-130		
Chloroethane	**19.5**	D	µg/l		20.0	BRL	97	70-130		
Chloroform	**19.0**	D	µg/l		20.0	BRL	95	70-130		
Chloromethane	**18.3**	D	µg/l		20.0	BRL	92	70-130		
2-Chlorotoluene	**18.7**	D	µg/l		20.0	BRL	94	70-130		
4-Chlorotoluene	**20.9**	D	µg/l		20.0	BRL	105	70-130		
1,2-Dibromo-3-chloropropane	**18.6**	D	µg/l		20.0	BRL	93	70-130		
Dibromochloromethane	**18.9**	D	µg/l		20.0	BRL	94	70-130		
1,2-Dibromoethane (EDB)	**19.9**	D	µg/l		20.0	BRL	100	70-130		
Dibromomethane	**19.3**	D	µg/l		20.0	BRL	96	70-130		
1,2-Dichlorobenzene	**19.8**	D	µg/l		20.0	BRL	99	70-130		
1,3-Dichlorobenzene	**20.4**	D	µg/l		20.0	BRL	102	70-130		
1,4-Dichlorobenzene	**18.8**	D	µg/l		20.0	BRL	94	70-130		
Dichlorodifluoromethane (Freon12)	**20.7**	D	µg/l		20.0	BRL	104	70-130		
1,1-Dichloroethane	**19.6**	D	µg/l		20.0	BRL	98	70-130		
1,2-Dichloroethane	**20.1**	D	µg/l		20.0	0.2	100	70-130		
1,1-Dichloroethene	**21.0**	D	µg/l		20.0	0.7	102	70-130		
cis-1,2-Dichloroethene	**126**	QM7, D, E	µg/l		20.0	98.5	137	70-130		
trans-1,2-Dichloroethene	**20.0**	D	µg/l		20.0	0.3	99	70-130		
1,2-Dichloropropane	**19.8**	D	µg/l		20.0	BRL	99	70-130		
1,3-Dichloropropane	**19.5**	D	µg/l		20.0	BRL	98	70-130		
2,2-Dichloropropane	**15.4**	D	µg/l		20.0	BRL	77	70-130		
1,1-Dichloropropene	**20.2**	D	µg/l		20.0	BRL	101	70-130		
cis-1,3-Dichloropropene	**18.1**	D	µg/l		20.0	BRL	91	70-130		
trans-1,3-Dichloropropene	**18.0**	D	µg/l		20.0	BRL	90	70-130		
Ethylbenzene	**21.0**	D	µg/l		20.0	BRL	105	70-130		
Hexachlorobutadiene	**20.1**	D	µg/l		20.0	BRL	101	70-130		
2-Hexanone (MBK)	**19.6**	D	µg/l		20.0	BRL	98	70-130		
Isopropylbenzene	**20.8**	D	µg/l		20.0	BRL	104	70-130		
4-Isopropyltoluene	**21.5**	D	µg/l		20.0	BRL	108	70-130		
Methyl tert-butyl ether	**16.8**	D	µg/l		20.0	BRL	84	70-130		
4-Methyl-2-pentanone (MIBK)	**20.7**	D	µg/l		20.0	BRL	103	70-130		
Methylene chloride	**20.0**	D	µg/l		20.0	BRL	100	70-130		
Naphthalene	**19.7**	D	µg/l		20.0	BRL	99	70-130		
n-Propylbenzene	**23.6**	D	µg/l		20.0	BRL	118	70-130		
Styrene	**21.2**	D	µg/l		20.0	BRL	106	70-130		
1,1,1,2-Tetrachloroethane	**19.9**	D	µg/l		20.0	BRL	99	70-130		
1,1,2,2-Tetrachloroethane	**20.9**	D	µg/l		20.0	BRL	105	70-130		
Tetrachloroethene	**38.7**	D	µg/l		20.0	15.0	118	70-130		
Toluene	**20.0**	D	µg/l		20.0	BRL	100	70-130		
1,2,3-Trichlorobenzene	**20.9**	D	µg/l		20.0	BRL	105	70-130		
1,2,4-Trichlorobenzene	**20.4**	D	µg/l		20.0	BRL	102	70-130		
1,3,5-Trichlorobenzene	**20.5**	D	µg/l		20.0	BRL	103	70-130		
1,1,1-Trichloroethane	**20.2**	D	µg/l		20.0	BRL	101	70-130		
1,1,2-Trichloroethane	**19.3**	D	µg/l		20.0	BRL	96	70-130		
Trichloroethene	**64.7**	D	µg/l		20.0	40.8	119	70-130		
Trichlorofluoromethane (Freon 11)	**21.9**	D	µg/l		20.0	BRL	110	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617230 - SW846 5030 Water MS										
Matrix Spike (1617230-MS1)			**Source: SC26674-20**		Prepared & Analyzed: 06-Oct-16					
1,2,3-Trichloropropane	**20.0**	D	µg/l		20.0	BRL	100	70-130		
1,2,4-Trimethylbenzene	**20.3**	D	µg/l		20.0	BRL	102	70-130		
1,3,5-Trimethylbenzene	**20.5**	D	µg/l		20.0	BRL	103	70-130		
Vinyl chloride	**30.6**	D	µg/l		20.0	8.8	109	70-130		
m,p-Xylene	**21.6**	D	µg/l		20.0	BRL	108	70-130		
o-Xylene	**21.4**	D	µg/l		20.0	BRL	107	70-130		
Tetrahydrofuran	**19.7**	D	µg/l		20.0	BRL	99	70-130		
Ethyl ether	**20.0**	D	µg/l		20.0	BRL	100	70-130		
Tert-amyl methyl ether	**23.3**	D	µg/l		20.0	BRL	117	70-130		
Ethyl tert-butyl ether	**15.1**	D	µg/l		20.0	BRL	75	70-130		
Di-isopropyl ether	**19.1**	D	µg/l		20.0	BRL	96	70-130		
Tert-Butanol / butyl alcohol	**157**	D	µg/l		200	BRL	79	70-130		
1,4-Dioxane	**190**	D	µg/l		200	BRL	95	70-130		
trans-1,4-Dichloro-2-butene	**23.8**	D	µg/l		20.0	BRL	119	70-130		
Ethanol	**401**	D	µg/l		400	BRL	100	70-130		
Surrogate: 4-Bromofluorobenzene	*50.8*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.9*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Dibromofluoromethane	*49.7*		µg/l		*50.0*		*99*	*70-130*		
Matrix Spike Dup (1617230-MSD1)			**Source: SC26674-20**		Prepared & Analyzed: 06-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.5**	D	µg/l		20.0	BRL	107	70-130	0.2	20
Acetone	**20.0**	D	µg/l		20.0	BRL	100	70-130	2	20
Acrylonitrile	**20.0**	D	µg/l		20.0	BRL	100	70-130	6	20
Benzene	**19.8**	D	µg/l		20.0	0.4	97	70-130	3	20
Bromobenzene	**19.8**	D	µg/l		20.0	BRL	99	70-130	2	20
Bromochloromethane	**19.7**	D	µg/l		20.0	BRL	99	70-130	0.3	20
Bromodichloromethane	**19.3**	D	µg/l		20.0	BRL	96	70-130	0.9	20
Bromoform	**18.8**	D	µg/l		20.0	BRL	94	70-130	6	20
Bromomethane	**21.6**	D	µg/l		20.0	BRL	108	70-130	9	20
2-Butanone (MEK)	**19.0**	D	µg/l		20.0	BRL	95	70-130	3	20
n-Butylbenzene	**19.4**	D	µg/l		20.0	BRL	97	70-130	3	20
sec-Butylbenzene	**21.8**	D	µg/l		20.0	BRL	109	70-130	4	20
tert-Butylbenzene	**21.5**	D	µg/l		20.0	BRL	107	70-130	4	20
Carbon disulfide	**19.2**	D	µg/l		20.0	BRL	96	70-130	1	20
Carbon tetrachloride	**18.9**	D	µg/l		20.0	BRL	95	70-130	6	20
Chlorobenzene	**19.1**	D	µg/l		20.0	BRL	96	70-130	3	20
Chloroethane	**19.0**	D	µg/l		20.0	BRL	95	70-130	3	20
Chloroform	**18.3**	D	µg/l		20.0	BRL	91	70-130	4	20
Chloromethane	**17.8**	D	µg/l		20.0	BRL	89	70-130	3	20
2-Chlorotoluene	**22.4**	D	µg/l		20.0	BRL	112	70-130	18	20
4-Chlorotoluene	**20.4**	D	µg/l		20.0	BRL	102	70-130	3	20
1,2-Dibromo-3-chloropropane	**18.1**	D	µg/l		20.0	BRL	90	70-130	3	20
Dibromochloromethane	**18.7**	D	µg/l		20.0	BRL	94	70-130	1	20
1,2-Dibromoethane (EDB)	**20.2**	D	µg/l		20.0	BRL	101	70-130	1	20
Dibromomethane	**19.4**	D	µg/l		20.0	BRL	97	70-130	0.6	20
1,2-Dichlorobenzene	**19.4**	D	µg/l		20.0	BRL	97	70-130	2	20
1,3-Dichlorobenzene	**19.8**	D	µg/l		20.0	BRL	99	70-130	3	20
1,4-Dichlorobenzene	**18.8**	D	µg/l		20.0	BRL	94	70-130	0	20
Dichlorodifluoromethane (Freon12)	**20.0**	D	µg/l		20.0	BRL	100	70-130	3	20
1,1-Dichloroethane	**19.5**	D	µg/l		20.0	BRL	97	70-130	0.8	20
1,2-Dichloroethane	**19.4**	D	µg/l		20.0	0.2	96	70-130	4	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617230 - SW846 5030 Water MS										
Matrix Spike Dup (1617230-MSD1)			**Source: SC26674-20**		Prepared & Analyzed: 06-Oct-16					
1,1-Dichloroethene	**20.7**	D	µg/l		20.0	0.7	100	70-130	1	20
cis-1,2-Dichloroethene	**124**	D, E	µg/l		20.0	98.5	128	70-130	1	20
trans-1,2-Dichloroethene	**19.7**	D	µg/l		20.0	0.3	97	70-130	2	20
1,2-Dichloropropane	**19.3**	D	µg/l		20.0	BRL	97	70-130	3	20
1,3-Dichloropropane	**19.3**	D	µg/l		20.0	BRL	96	70-130	1	20
2,2-Dichloropropane	**14.9**	D	µg/l		20.0	BRL	74	70-130	3	20
1,1-Dichloropropene	**19.8**	D	µg/l		20.0	BRL	99	70-130	2	20
cis-1,3-Dichloropropene	**18.1**	D	µg/l		20.0	BRL	91	70-130	0.2	20
trans-1,3-Dichloropropene	**17.8**	D	µg/l		20.0	BRL	89	70-130	0.7	20
Ethylbenzene	**20.4**	D	µg/l		20.0	BRL	102	70-130	3	20
Hexachlorobutadiene	**19.9**	D	µg/l		20.0	BRL	99	70-130	1	20
2-Hexanone (MBK)	**20.3**	D	µg/l		20.0	BRL	101	70-130	3	20
Isopropylbenzene	**19.9**	D	µg/l		20.0	BRL	100	70-130	4	20
4-Isopropyltoluene	**21.1**	D	µg/l		20.0	BRL	106	70-130	2	20
Methyl tert-butyl ether	**17.3**	D	µg/l		20.0	BRL	86	70-130	2	20
4-Methyl-2-pentanone (MIBK)	**21.2**	D	µg/l		20.0	BRL	106	70-130	2	20
Methylene chloride	**19.1**	D	µg/l		20.0	BRL	96	70-130	5	20
Naphthalene	**20.0**	D	µg/l		20.0	BRL	100	70-130	1	20
n-Propylbenzene	**22.7**	D	µg/l		20.0	BRL	114	70-130	4	20
Styrene	**20.8**	D	µg/l		20.0	BRL	104	70-130	2	20
1,1,1,2-Tetrachloroethane	**19.6**	D	µg/l		20.0	BRL	98	70-130	1	20
1,1,2,2-Tetrachloroethane	**20.5**	D	µg/l		20.0	BRL	103	70-130	2	20
Tetrachloroethene	**36.9**	D	µg/l		20.0	15.0	109	70-130	5	20
Toluene	**19.3**	D	µg/l		20.0	BRL	97	70-130	4	20
1,2,3-Trichlorobenzene	**20.4**	D	µg/l		20.0	BRL	102	70-130	3	20
1,2,4-Trichlorobenzene	**20.1**	D	µg/l		20.0	BRL	100	70-130	1	20
1,3,5-Trichlorobenzene	**19.8**	D	µg/l		20.0	BRL	99	70-130	4	20
1,1,1-Trichloroethane	**19.2**	D	µg/l		20.0	BRL	96	70-130	5	20
1,1,2-Trichloroethane	**18.8**	D	µg/l		20.0	BRL	94	70-130	3	20
Trichloroethene	**63.1**	D	µg/l		20.0	40.8	112	70-130	2	20
Trichlorofluoromethane (Freon 11)	**20.9**	D	µg/l		20.0	BRL	104	70-130	5	20
1,2,3-Trichloropropane	**20.5**	D	µg/l		20.0	BRL	103	70-130	3	20
1,2,4-Trimethylbenzene	**19.6**	D	µg/l		20.0	BRL	98	70-130	3	20
1,3,5-Trimethylbenzene	**19.6**	D	µg/l		20.0	BRL	98	70-130	5	20
Vinyl chloride	**29.3**	D	µg/l		20.0	8.8	102	70-130	5	20
m,p-Xylene	**21.4**	D	µg/l		20.0	BRL	107	70-130	1	20
o-Xylene	**20.8**	D	µg/l		20.0	BRL	104	70-130	3	20
Tetrahydrofuran	**20.6**	D	µg/l		20.0	BRL	103	70-130	5	20
Ethyl ether	**19.9**	D	µg/l		20.0	BRL	99	70-130	0.4	20
Tert-amyl methyl ether	**22.7**	D	µg/l		20.0	BRL	114	70-130	3	20
Ethyl tert-butyl ether	**15.4**	D	µg/l		20.0	BRL	77	70-130	2	20
Di-isopropyl ether	**18.9**	D	µg/l		20.0	BRL	95	70-130	1	20
Tert-Butanol / butyl alcohol	**163**	D	µg/l		200	BRL	81	70-130	3	20
1,4-Dioxane	**179**	D	µg/l		200	BRL	90	70-130	6	20
trans-1,4-Dichloro-2-butene	**23.2**	D	µg/l		20.0	BRL	116	70-130	3	20
Ethanol	**387**	D	µg/l		400	BRL	97	70-130	4	20
Surrogate: 4-Bromofluorobenzene	*50.5*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*49.7*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.5*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*49.6*		µg/l		*50.0*		*99*	*70-130*		
Batch 1617310 - SW846 5030 Water MS										

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617310 - SW846 5030 Water MS										
Blank (1617310-BLK1)					Prepared & Analyzed: 07-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 2.0		µg/l	2.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 2.0		µg/l	2.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 2.0		µg/l	2.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617310 - SW846 5030 Water MS										
Blank (1617310-BLK1)					Prepared & Analyzed: 07-Oct-16					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 200		µg/l	200						
Surrogate: 4-Bromofluorobenzene	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*49.2*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*46.2*		µg/l		*50.0*		*92*	*70-130*		
Surrogate: Dibromofluoromethane	*51.1*		µg/l		*50.0*		*102*	*70-130*		
LCS (1617310-BS1)					Prepared & Analyzed: 07-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**14.8**		µg/l		20.0		74	70-130		
Acetone	**23.0**		µg/l		20.0		115	70-130		
Acrylonitrile	**21.6**		µg/l		20.0		108	70-130		
Benzene	**18.3**		µg/l		20.0		91	70-130		
Bromobenzene	**20.0**		µg/l		20.0		100	70-130		
Bromochloromethane	**19.5**		µg/l		20.0		98	70-130		
Bromodichloromethane	**21.8**		µg/l		20.0		109	70-130		
Bromoform	**22.0**		µg/l		20.0		110	70-130		
Bromomethane	**13.2**		µg/l		20.0		66	70-130		
2-Butanone (MEK)	**22.0**		µg/l		20.0		110	70-130		
n-Butylbenzene	**16.3**		µg/l		20.0		82	70-130		
sec-Butylbenzene	**18.0**		µg/l		20.0		90	70-130		
tert-Butylbenzene	**18.4**		µg/l		20.0		92	70-130		
Carbon disulfide	**17.2**		µg/l		20.0		86	70-130		
Carbon tetrachloride	**15.9**		µg/l		20.0		79	70-130		
Chlorobenzene	**18.9**		µg/l		20.0		94	70-130		
Chloroethane	**16.9**		µg/l		20.0		85	70-130		
Chloroform	**17.8**		µg/l		20.0		89	70-130		
Chloromethane	**16.2**		µg/l		20.0		81	70-130		
2-Chlorotoluene	**16.7**		µg/l		20.0		84	70-130		
4-Chlorotoluene	**20.2**		µg/l		20.0		101	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617310 - SW846 5030 Water MS										
LCS (1617310-BS1)					Prepared & Analyzed: 07-Oct-16					
1,2-Dibromo-3-chloropropane	**21.4**		µg/l		20.0		107	70-130		
Dibromochloromethane	**20.6**		µg/l		20.0		103	70-130		
1,2-Dibromoethane (EDB)	**21.2**		µg/l		20.0		106	70-130		
Dibromomethane	**21.0**		µg/l		20.0		105	70-130		
1,2-Dichlorobenzene	**19.8**		µg/l		20.0		99	70-130		
1,3-Dichlorobenzene	**20.0**		µg/l		20.0		100	70-130		
1,4-Dichlorobenzene	**18.6**		µg/l		20.0		93	70-130		
Dichlorodifluoromethane (Freon12)	**13.5**		µg/l		20.0		67	70-130		
1,1-Dichloroethane	**18.4**		µg/l		20.0		92	70-130		
1,2-Dichloroethane	**17.7**		µg/l		20.0		88	70-130		
1,1-Dichloroethene	**16.6**		µg/l		20.0		83	70-130		
cis-1,2-Dichloroethene	**18.3**		µg/l		20.0		92	70-130		
trans-1,2-Dichloroethene	**18.6**		µg/l		20.0		93	70-130		
1,2-Dichloropropane	**19.4**		µg/l		20.0		97	70-130		
1,3-Dichloropropane	**20.4**		µg/l		20.0		102	70-130		
2,2-Dichloropropane	**15.9**		µg/l		20.0		79	70-130		
1,1-Dichloropropene	**15.9**		µg/l		20.0		79	70-130		
cis-1,3-Dichloropropene	**20.5**		µg/l		20.0		102	70-130		
trans-1,3-Dichloropropene	**20.3**		µg/l		20.0		102	70-130		
Ethylbenzene	**18.9**		µg/l		20.0		94	70-130		
Hexachlorobutadiene	**16.4**		µg/l		20.0		82	70-130		
2-Hexanone (MBK)	**23.0**		µg/l		20.0		115	70-130		
Isopropylbenzene	**17.7**		µg/l		20.0		88	70-130		
4-Isopropyltoluene	**18.0**		µg/l		20.0		90	70-130		
Methyl tert-butyl ether	**18.6**		µg/l		20.0		93	70-130		
4-Methyl-2-pentanone (MIBK)	**24.4**		µg/l		20.0		122	70-130		
Methylene chloride	**19.3**		µg/l		20.0		96	70-130		
Naphthalene	**20.8**		µg/l		20.0		104	70-130		
n-Propylbenzene	**18.4**		µg/l		20.0		92	70-130		
Styrene	**20.7**		µg/l		20.0		103	70-130		
1,1,1,2-Tetrachloroethane	**19.9**		µg/l		20.0		100	70-130		
1,1,2,2-Tetrachloroethane	**21.8**		µg/l		20.0		109	70-130		
Tetrachloroethene	**17.6**		µg/l		20.0		88	70-130		
Toluene	**18.8**		µg/l		20.0		94	70-130		
1,2,3-Trichlorobenzene	**20.6**		µg/l		20.0		103	70-130		
1,2,4-Trichlorobenzene	**20.2**		µg/l		20.0		101	70-130		
1,3,5-Trichlorobenzene	**19.4**		µg/l		20.0		97	70-130		
1,1,1-Trichloroethane	**15.8**		µg/l		20.0		79	70-130		
1,1,2-Trichloroethane	**19.9**		µg/l		20.0		99	70-130		
Trichloroethene	**18.5**		µg/l		20.0		92	70-130		
Trichlorofluoromethane (Freon 11)	**15.3**		µg/l		20.0		77	70-130		
1,2,3-Trichloropropane	**21.5**		µg/l		20.0		108	70-130		
1,2,4-Trimethylbenzene	**18.8**		µg/l		20.0		94	70-130		
1,3,5-Trimethylbenzene	**18.1**		µg/l		20.0		90	70-130		
Vinyl chloride	**13.5**	QM9	µg/l		20.0		67	70-130		
m,p-Xylene	**19.6**		µg/l		20.0		98	70-130		
o-Xylene	**20.0**		µg/l		20.0		100	70-130		
Tetrahydrofuran	**27.2**	QM9	µg/l		20.0		136	70-130		
Ethyl ether	**19.2**		µg/l		20.0		96	70-130		
Tert-amyl methyl ether	**22.5**		µg/l		20.0		112	70-130		
Ethyl tert-butyl ether	**16.6**		µg/l		20.0		83	70-130		
Di-isopropyl ether	**18.6**		µg/l		20.0		93	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617310 - SW846 5030 Water MS										
LCS (1617310-BS1)					Prepared & Analyzed: 07-Oct-16					
Tert-Butanol / butyl alcohol	**214**		µg/l		200		107	70-130		
1,4-Dioxane	**331**		µg/l		200		165	70-130		
trans-1,4-Dichloro-2-butene	**27.2**	QM9	µg/l		20.0		136	70-130		
Ethanol	**571**	QM9	µg/l		400		143	70-130		
Surrogate: 4-Bromofluorobenzene	*51.1*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*45.9*		µg/l		*50.0*		*92*	*70-130*		
Surrogate: Dibromofluoromethane	*49.3*		µg/l		*50.0*		*99*	*70-130*		
LCS Dup (1617310-BSD1)					Prepared & Analyzed: 07-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**14.8**		µg/l		20.0		74	70-130	0.2	20
Acetone	**17.0**	QR5	µg/l		20.0		85	70-130	30	20
Acrylonitrile	**17.3**	QR5	µg/l		20.0		86	70-130	22	20
Benzene	**19.0**		µg/l		20.0		95	70-130	4	20
Bromobenzene	**20.2**		µg/l		20.0		101	70-130	0.8	20
Bromochloromethane	**20.0**		µg/l		20.0		100	70-130	3	20
Bromodichloromethane	**21.4**		µg/l		20.0		107	70-130	2	20
Bromoform	**21.2**		µg/l		20.0		106	70-130	4	20
Bromomethane	**12.5**		µg/l		20.0		62	70-130	6	20
2-Butanone (MEK)	**17.1**	QR5	µg/l		20.0		85	70-130	25	20
n-Butylbenzene	**17.0**		µg/l		20.0		85	70-130	4	20
sec-Butylbenzene	**18.2**		µg/l		20.0		91	70-130	0.8	20
tert-Butylbenzene	**19.0**		µg/l		20.0		95	70-130	3	20
Carbon disulfide	**17.0**		µg/l		20.0		85	70-130	1	20
Carbon tetrachloride	**16.2**		µg/l		20.0		81	70-130	2	20
Chlorobenzene	**19.2**		µg/l		20.0		96	70-130	2	20
Chloroethane	**17.7**		µg/l		20.0		88	70-130	5	20
Chloroform	**18.4**		µg/l		20.0		92	70-130	3	20
Chloromethane	**16.4**		µg/l		20.0		82	70-130	2	20
2-Chlorotoluene	**21.1**	QR5	µg/l		20.0		106	70-130	23	20
4-Chlorotoluene	**20.2**		µg/l		20.0		101	70-130	0.2	20
1,2-Dibromo-3-chloropropane	**18.2**		µg/l		20.0		91	70-130	16	20
Dibromochloromethane	**20.9**		µg/l		20.0		104	70-130	2	20
1,2-Dibromoethane (EDB)	**21.1**		µg/l		20.0		105	70-130	0.4	20
Dibromomethane	**20.7**		µg/l		20.0		104	70-130	1	20
1,2-Dichlorobenzene	**20.1**		µg/l		20.0		101	70-130	2	20
1,3-Dichlorobenzene	**20.1**		µg/l		20.0		100	70-130	0.4	20
1,4-Dichlorobenzene	**18.7**		µg/l		20.0		94	70-130	1	20
Dichlorodifluoromethane (Freon12)	**13.2**		µg/l		20.0		66	70-130	2	20
1,1-Dichloroethane	**18.4**		µg/l		20.0		92	70-130	0.4	20
1,2-Dichloroethane	**18.3**		µg/l		20.0		92	70-130	3	20
1,1-Dichloroethene	**16.3**		µg/l		20.0		82	70-130	1	20
cis-1,2-Dichloroethene	**18.9**		µg/l		20.0		94	70-130	3	20
trans-1,2-Dichloroethene	**18.0**		µg/l		20.0		90	70-130	3	20
1,2-Dichloropropane	**19.8**		µg/l		20.0		99	70-130	2	20
1,3-Dichloropropane	**20.6**		µg/l		20.0		103	70-130	0.6	20
2,2-Dichloropropane	**15.7**		µg/l		20.0		79	70-130	0.9	20
1,1-Dichloropropene	**15.9**		µg/l		20.0		79	70-130	0.06	20
cis-1,3-Dichloropropene	**20.7**		µg/l		20.0		103	70-130	0.9	20
trans-1,3-Dichloropropene	**20.5**		µg/l		20.0		102	70-130	0.6	20
Ethylbenzene	**19.4**		µg/l		20.0		97	70-130	3	20
Hexachlorobutadiene	**16.6**		µg/l		20.0		83	70-130	1	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617310 - SW846 5030 Water MS										
LCS Dup (1617310-BSD1)					Prepared & Analyzed: 07-Oct-16					
2-Hexanone (MBK)	**18.5**	QR5	µg/l		20.0		92	70-130	22	20
Isopropylbenzene	**17.8**		µg/l		20.0		89	70-130	0.9	20
4-Isopropyltoluene	**18.4**		µg/l		20.0		92	70-130	2	20
Methyl tert-butyl ether	**17.9**		µg/l		20.0		89	70-130	4	20
4-Methyl-2-pentanone (MIBK)	**19.9**		µg/l		20.0		100	70-130	20	20
Methylene chloride	**19.6**		µg/l		20.0		98	70-130	1	20
Naphthalene	**18.9**		µg/l		20.0		94	70-130	10	20
n-Propylbenzene	**18.9**		µg/l		20.0		94	70-130	2	20
Styrene	**20.6**		µg/l		20.0		103	70-130	0.05	20
1,1,1,2-Tetrachloroethane	**20.3**		µg/l		20.0		102	70-130	2	20
1,1,2,2-Tetrachloroethane	**20.0**		µg/l		20.0		100	70-130	8	20
Tetrachloroethene	**17.6**		µg/l		20.0		88	70-130	0.2	20
Toluene	**19.2**		µg/l		20.0		96	70-130	2	20
1,2,3-Trichlorobenzene	**20.3**		µg/l		20.0		102	70-130	2	20
1,2,4-Trichlorobenzene	**20.4**		µg/l		20.0		102	70-130	0.9	20
1,3,5-Trichlorobenzene	**19.7**		µg/l		20.0		99	70-130	1	20
1,1,1-Trichloroethane	**16.4**		µg/l		20.0		82	70-130	4	20
1,1,2-Trichloroethane	**20.2**		µg/l		20.0		101	70-130	1	20
Trichloroethene	**18.7**		µg/l		20.0		94	70-130	2	20
Trichlorofluoromethane (Freon 11)	**15.3**		µg/l		20.0		76	70-130	0.4	20
1,2,3-Trichloropropane	**19.4**		µg/l		20.0		97	70-130	10	20
1,2,4-Trimethylbenzene	**19.1**		µg/l		20.0		96	70-130	2	20
1,3,5-Trimethylbenzene	**18.2**		µg/l		20.0		91	70-130	0.6	20
Vinyl chloride	**15.0**		µg/l		20.0		75	70-130	11	20
m,p-Xylene	**20.1**		µg/l		20.0		100	70-130	2	20
o-Xylene	**20.2**		µg/l		20.0		101	70-130	1	20
Tetrahydrofuran	**21.1**	QR5	µg/l		20.0		106	70-130	25	20
Ethyl ether	**19.3**		µg/l		20.0		97	70-130	0.5	20
Tert-amyl methyl ether	**22.3**		µg/l		20.0		112	70-130	0.5	20
Ethyl tert-butyl ether	**16.7**		µg/l		20.0		83	70-130	0.6	20
Di-isopropyl ether	**18.9**		µg/l		20.0		95	70-130	2	20
Tert-Butanol / butyl alcohol	**158**	QR5	µg/l		200		79	70-130	30	20
1,4-Dioxane	**223**	QR5	µg/l		200		112	70-130	39	20
trans-1,4-Dichloro-2-butene	**24.9**		µg/l		20.0		124	70-130	9	20
Ethanol	**437**	QR5	µg/l		400		109	70-130	27	20
Surrogate: 4-Bromofluorobenzene	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*50.3*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*44.5*		µg/l		*50.0*		*89*	*70-130*		
Surrogate: Dibromofluoromethane	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Matrix Spike (1617310-MS1)				**Source: SC26674-21**	Prepared & Analyzed: 07-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**18.6**	D	µg/l		20.0	BRL	93	70-130		
Acetone	**21.5**	D	µg/l		20.0	BRL	108	70-130		
Acrylonitrile	**20.9**	D	µg/l		20.0	BRL	104	70-130		
Benzene	**19.4**	D	µg/l		20.0	0.6	94	70-130		
Bromobenzene	**19.8**	D	µg/l		20.0	BRL	99	70-130		
Bromochloromethane	**19.0**	D	µg/l		20.0	BRL	95	70-130		
Bromodichloromethane	**20.7**	D	µg/l		20.0	BRL	104	70-130		
Bromoform	**20.1**	D	µg/l		20.0	BRL	100	70-130		
Bromomethane	**14.8**	D	µg/l		20.0	BRL	74	70-130		
2-Butanone (MEK)	**19.8**	D	µg/l		20.0	0.9	94	70-130		
n-Butylbenzene	**18.7**	D	µg/l		20.0	BRL	93	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617310 - SW846 5030 Water MS										
Matrix Spike (1617310-MS1)			**Source: SC26674-21**		Prepared & Analyzed: 07-Oct-16					
sec-Butylbenzene	**20.8**	D	µg/l		20.0	BRL	104	70-130		
tert-Butylbenzene	**21.5**	D	µg/l		20.0	BRL	107	70-130		
Carbon disulfide	**17.5**	D	µg/l		20.0	BRL	87	70-130		
Carbon tetrachloride	**18.5**	D	µg/l		20.0	BRL	92	70-130		
Chlorobenzene	**19.0**	D	µg/l		20.0	BRL	95	70-130		
Chloroethane	**17.7**	D	µg/l		20.0	BRL	89	70-130		
Chloroform	**17.5**	D	µg/l		20.0	BRL	88	70-130		
Chloromethane	**15.9**	D	µg/l		20.0	BRL	80	70-130		
2-Chlorotoluene	**21.0**	D	µg/l		20.0	BRL	105	70-130		
4-Chlorotoluene	**20.2**	D	µg/l		20.0	BRL	101	70-130		
1,2-Dibromo-3-chloropropane	**19.0**	D	µg/l		20.0	BRL	95	70-130		
Dibromochloromethane	**19.5**	D	µg/l		20.0	BRL	98	70-130		
1,2-Dibromoethane (EDB)	**20.8**	D	µg/l		20.0	BRL	104	70-130		
Dibromomethane	**19.7**	D	µg/l		20.0	BRL	98	70-130		
1,2-Dichlorobenzene	**19.4**	D	µg/l		20.0	BRL	97	70-130		
1,3-Dichlorobenzene	**19.9**	D	µg/l		20.0	BRL	99	70-130		
1,4-Dichlorobenzene	**18.1**	D	µg/l		20.0	BRL	90	70-130		
Dichlorodifluoromethane (Freon12)	**16.0**	D	µg/l		20.0	BRL	80	70-130		
1,1-Dichloroethane	**18.4**	D	µg/l		20.0	BRL	92	70-130		
1,2-Dichloroethane	**17.5**	D	µg/l		20.0	BRL	87	70-130		
1,1-Dichloroethene	**18.0**	D	µg/l		20.0	BRL	90	70-130		
cis-1,2-Dichloroethene	**27.4**	D	µg/l		20.0	8.9	92	70-130		
trans-1,2-Dichloroethene	**18.6**	D	µg/l		20.0	BRL	93	70-130		
1,2-Dichloropropane	**19.0**	D	µg/l		20.0	BRL	95	70-130		
1,3-Dichloropropane	**20.0**	D	µg/l		20.0	BRL	100	70-130		
2,2-Dichloropropane	**14.5**	D	µg/l		20.0	BRL	73	70-130		
1,1-Dichloropropene	**18.0**	D	µg/l		20.0	BRL	90	70-130		
cis-1,3-Dichloropropene	**19.2**	D	µg/l		20.0	BRL	96	70-130		
trans-1,3-Dichloropropene	**19.5**	D	µg/l		20.0	BRL	97	70-130		
Ethylbenzene	**35.3**	D	µg/l		20.0	13.9	107	70-130		
Hexachlorobutadiene	**19.4**	D	µg/l		20.0	BRL	97	70-130		
2-Hexanone (MBK)	**21.0**	D	µg/l		20.0	BRL	105	70-130		
Isopropylbenzene	**19.8**	D	µg/l		20.0	0.6	96	70-130		
4-Isopropyltoluene	**20.1**	D	µg/l		20.0	BRL	101	70-130		
Methyl tert-butyl ether	**17.6**	D	µg/l		20.0	BRL	88	70-130		
4-Methyl-2-pentanone (MIBK)	**41.7**	QM7, D	µg/l		20.0	14.2	137	70-130		
Methylene chloride	**18.6**	D	µg/l		20.0	BRL	93	70-130		
Naphthalene	**20.3**	D	µg/l		20.0	0.6	99	70-130		
n-Propylbenzene	**20.9**	D	µg/l		20.0	0.2	103	70-130		
Styrene	**20.5**	D	µg/l		20.0	BRL	102	70-130		
1,1,1,2-Tetrachloroethane	**19.4**	D	µg/l		20.0	BRL	97	70-130		
1,1,2,2-Tetrachloroethane	**21.1**	D	µg/l		20.0	BRL	105	70-130		
Tetrachloroethene	**19.8**	D	µg/l		20.0	BRL	99	70-130		
Toluene	**61.0**	D	µg/l		20.0	39.6	107	70-130		
1,2,3-Trichlorobenzene	**19.5**	D	µg/l		20.0	BRL	97	70-130		
1,2,4-Trichlorobenzene	**20.0**	D	µg/l		20.0	BRL	100	70-130		
1,3,5-Trichlorobenzene	**19.2**	D	µg/l		20.0	BRL	96	70-130		
1,1,1-Trichloroethane	**17.5**	D	µg/l		20.0	BRL	88	70-130		
1,1,2-Trichloroethane	**20.0**	D	µg/l		20.0	BRL	100	70-130		
Trichloroethene	**19.2**	D	µg/l		20.0	BRL	96	70-130		
Trichlorofluoromethane (Freon 11)	**18.3**	D	µg/l		20.0	BRL	91	70-130		
1,2,3-Trichloropropane	**21.1**	D	µg/l		20.0	BRL	106	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617310 - SW846 5030 Water MS										
Matrix Spike (1617310-MS1)			**Source: SC26674-21**		Prepared & Analyzed: 07-Oct-16					
1,2,4-Trimethylbenzene	**21.3**	D	µg/l		20.0	1.4	99	70-130		
1,3,5-Trimethylbenzene	**20.0**	D	µg/l		20.0	0.7	97	70-130		
Vinyl chloride	**15.2**	D	µg/l		20.0	1.0	71	70-130		
m,p-Xylene	**52.3**	D	µg/l		20.0	29.8	112	70-130		
o-Xylene	**32.1**	D	µg/l		20.0	10.5	108	70-130		
Tetrahydrofuran	**24.1**	D	µg/l		20.0	1.2	114	70-130		
Ethyl ether	**18.6**	D	µg/l		20.0	BRL	93	70-130		
Tert-amyl methyl ether	**21.4**	D	µg/l		20.0	BRL	107	70-130		
Ethyl tert-butyl ether	**17.7**	D	µg/l		20.0	BRL	88	70-130		
Di-isopropyl ether	**17.9**	D	µg/l		20.0	BRL	90	70-130		
Tert-Butanol / butyl alcohol	**195**	D	µg/l		200	1.8	97	70-130		
1,4-Dioxane	**291**	QM7, D	µg/l		200	BRL	146	70-130		
trans-1,4-Dichloro-2-butene	**27.9**	QM7, D	µg/l		20.0	BRL	140	70-130		
Ethanol	**531**	QM7, D	µg/l		400	7.9	131	70-130		
Surrogate: 4-Bromofluorobenzene	*51.0*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*45.8*		µg/l		*50.0*		*92*	*70-130*		
Surrogate: Dibromofluoromethane	*51.8*		µg/l		*50.0*		*104*	*70-130*		
Matrix Spike Dup (1617310-MSD1)			**Source: SC26674-21**		Prepared & Analyzed: 07-Oct-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**20.1**	D	µg/l		20.0	BRL	100	70-130		20
Acetone	**21.7**	D	µg/l		20.0	BRL	108	70-130		20
Acrylonitrile	**21.4**	D	µg/l		20.0	BRL	107	70-130		20
Benzene	**20.2**	D	µg/l		20.0	0.6	98	70-130		20
Bromobenzene	**20.6**	D	µg/l		20.0	BRL	103	70-130		20
Bromochloromethane	**19.6**	D	µg/l		20.0	BRL	98	70-130		20
Bromodichloromethane	**21.7**	D	µg/l		20.0	BRL	108	70-130		20
Bromoform	**22.1**	D	µg/l		20.0	BRL	110	70-130		20
Bromomethane	**18.8**	D	µg/l		20.0	BRL	94	70-130		20
2-Butanone (MEK)	**21.2**	D	µg/l		20.0	0.9	102	70-130		20
n-Butylbenzene	**20.5**	D	µg/l		20.0	BRL	103	70-130		20
sec-Butylbenzene	**22.6**	D	µg/l		20.0	BRL	113	70-130		20
tert-Butylbenzene	**22.7**	D	µg/l		20.0	BRL	114	70-130		20
Carbon disulfide	**19.8**	D	µg/l		20.0	BRL	99	70-130		20
Carbon tetrachloride	**19.6**	D	µg/l		20.0	BRL	98	70-130		20
Chlorobenzene	**19.7**	D	µg/l		20.0	BRL	99	70-130		20
Chloroethane	**19.5**	D	µg/l		20.0	BRL	98	70-130		20
Chloroform	**18.2**	D	µg/l		20.0	BRL	91	70-130		20
Chloromethane	**17.4**	D	µg/l		20.0	BRL	87	70-130		20
2-Chlorotoluene	**22.0**	D	µg/l		20.0	BRL	110	70-130		20
4-Chlorotoluene	**21.5**	D	µg/l		20.0	BRL	108	70-130		20
1,2-Dibromo-3-chloropropane	**20.5**	D	µg/l		20.0	BRL	102	70-130		20
Dibromochloromethane	**20.2**	D	µg/l		20.0	BRL	101	70-130		20
1,2-Dibromoethane (EDB)	**21.0**	D	µg/l		20.0	BRL	105	70-130		20
Dibromomethane	**20.3**	D	µg/l		20.0	BRL	102	70-130		20
1,2-Dichlorobenzene	**20.5**	D	µg/l		20.0	BRL	102	70-130		20
1,3-Dichlorobenzene	**21.1**	D	µg/l		20.0	BRL	106	70-130		20
1,4-Dichlorobenzene	**19.7**	D	µg/l		20.0	BRL	98	70-130		20
Dichlorodifluoromethane (Freon12)	**17.4**	D	µg/l		20.0	BRL	87	70-130		20
1,1-Dichloroethane	**19.4**	D	µg/l		20.0	BRL	97	70-130		20
1,2-Dichloroethane	**17.9**	D	µg/l		20.0	BRL	89	70-130		20
1,1-Dichloroethene	**19.3**	D	µg/l		20.0	BRL	97	70-130		20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617310 - SW846 5030 Water MS										
Matrix Spike Dup (1617310-MSD1)			**Source: SC26674-21**		Prepared & Analyzed: 07-Oct-16					
cis-1,2-Dichloroethene	**28.6**	D	µg/l		20.0	8.9	98	70-130		20
trans-1,2-Dichloroethene	**19.7**	D	µg/l		20.0	BRL	98	70-130		20
1,2-Dichloropropane	**19.9**	D	µg/l		20.0	BRL	100	70-130		20
1,3-Dichloropropane	**20.5**	D	µg/l		20.0	BRL	103	70-130		20
2,2-Dichloropropane	**15.9**	D	µg/l		20.0	BRL	80	70-130		20
1,1-Dichloropropene	**19.0**	D	µg/l		20.0	BRL	95	70-130		20
cis-1,3-Dichloropropene	**20.0**	D	µg/l		20.0	BRL	100	70-130		20
trans-1,3-Dichloropropene	**20.2**	D	µg/l		20.0	BRL	101	70-130		20
Ethylbenzene	**37.2**	D	µg/l		20.0	13.9	116	70-130		20
Hexachlorobutadiene	**20.8**	D	µg/l		20.0	BRL	104	70-130		20
2-Hexanone (MBK)	**21.0**	D	µg/l		20.0	BRL	105	70-130		20
Isopropylbenzene	**21.2**	D	µg/l		20.0	0.6	103	70-130		20
4-Isopropyltoluene	**22.0**	D	µg/l		20.0	BRL	110	70-130		20
Methyl tert-butyl ether	**18.4**	D	µg/l		20.0	BRL	92	70-130		20
4-Methyl-2-pentanone (MIBK)	**41.7**	QM7, D	µg/l		20.0	14.2	138	70-130		20
Methylene chloride	**19.7**	D	µg/l		20.0	BRL	98	70-130		20
Naphthalene	**21.2**	D	µg/l		20.0	0.6	103	70-130		20
n-Propylbenzene	**22.4**	D	µg/l		20.0	0.2	111	70-130		20
Styrene	**22.0**	D	µg/l		20.0	BRL	110	70-130		20
1,1,1,2-Tetrachloroethane	**20.8**	D	µg/l		20.0	BRL	104	70-130		20
1,1,2,2-Tetrachloroethane	**21.8**	D	µg/l		20.0	BRL	109	70-130		20
Tetrachloroethene	**20.9**	D	µg/l		20.0	BRL	105	70-130		20
Toluene	**62.8**	D	µg/l		20.0	39.6	116	70-130	3	20
1,2,3-Trichlorobenzene	**21.0**	D	µg/l		20.0	BRL	105	70-130		20
1,2,4-Trichlorobenzene	**21.6**	D	µg/l		20.0	BRL	108	70-130		20
1,3,5-Trichlorobenzene	**21.2**	D	µg/l		20.0	BRL	106	70-130		20
1,1,1-Trichloroethane	**18.9**	D	µg/l		20.0	BRL	95	70-130		20
1,1,2-Trichloroethane	**20.1**	D	µg/l		20.0	BRL	101	70-130		20
Trichloroethene	**20.0**	D	µg/l		20.0	BRL	100	70-130		20
Trichlorofluoromethane (Freon 11)	**19.8**	D	µg/l		20.0	BRL	99	70-130		20
1,2,3-Trichloropropane	**21.5**	D	µg/l		20.0	BRL	108	70-130		20
1,2,4-Trimethylbenzene	**22.4**	D	µg/l		20.0	1.4	105	70-130		20
1,3,5-Trimethylbenzene	**21.6**	D	µg/l		20.0	0.7	105	70-130		20
Vinyl chloride	**16.3**	D	µg/l		20.0	1.0	77	70-130		20
m,p-Xylene	**55.1**	D	µg/l		20.0	29.8	127	70-130		20
o-Xylene	**34.4**	D	µg/l		20.0	10.5	120	70-130		20
Tetrahydrofuran	**26.1**	D	µg/l		20.0	1.2	124	70-130		20
Ethyl ether	**19.9**	D	µg/l		20.0	BRL	100	70-130		20
Tert-amyl methyl ether	**21.8**	D	µg/l		20.0	BRL	109	70-130		20
Ethyl tert-butyl ether	**17.6**	D	µg/l		20.0	BRL	88	70-130		20
Di-isopropyl ether	**19.0**	D	µg/l		20.0	BRL	95	70-130		20
Tert-Butanol / butyl alcohol	**208**	D	µg/l		200	1.8	103	70-130		20
1,4-Dioxane	**294**	QM7, D	µg/l		200	BRL	147	70-130		20
trans-1,4-Dichloro-2-butene	**28.1**	QM7, D	µg/l		20.0	BRL	140	70-130		20
Ethanol	**572**	QM7, D	µg/l		400	7.9	141	70-130		20
Surrogate: 4-Bromofluorobenzene	*50.3*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*50.2*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*43.4*		µg/l		*50.0*		*87*	*70-130*		
Surrogate: Dibromofluoromethane	*47.8*		µg/l		*50.0*		*96*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617160 - SW846 3005A										
Blank (1617160-BLK1)					Prepared: 07-Oct-16 Analyzed: 10-Oct-16					
Copper	< 0.0050		mg/l	0.0050						
Zinc	< 0.0050		mg/l	0.0050						
Arsenic	< 0.0040		mg/l	0.0040						
Nickel	< 0.0050		mg/l	0.0050						
Chromium	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0025		mg/l	0.0025						
LCS (1617160-BS1)					Prepared: 07-Oct-16 Analyzed: 10-Oct-16					
Arsenic	**1.35**		mg/l	0.0040	1.25		108	85-115		
Cadmium	**1.37**		mg/l	0.0025	1.25		109	85-115		
Chromium	**1.32**		mg/l	0.0050	1.25		106	85-115		
Copper	**1.34**		mg/l	0.0050	1.25		108	85-115		
Nickel	**1.35**		mg/l	0.0050	1.25		108	85-115		
Zinc	**1.39**		mg/l	0.0050	1.25		111	85-115		
LCS Dup (1617160-BSD1)					Prepared: 07-Oct-16 Analyzed: 10-Oct-16					
Nickel	**1.38**		mg/l	0.0050	1.25		110	85-115	2	20
Arsenic	**1.37**		mg/l	0.0040	1.25		110	85-115	1	20
Cadmium	**1.38**		mg/l	0.0025	1.25		110	85-115	0.5	20
Copper	**1.35**		mg/l	0.0050	1.25		108	85-115	0.1	20
Zinc	**1.39**		mg/l	0.0050	1.25		111	85-115	0.1	20
Chromium	**1.34**		mg/l	0.0050	1.25		107	85-115	1	20
Duplicate (1617160-DUP1)			**Source: SC26674-08**		Prepared: 07-Oct-16 Analyzed: 10-Oct-16					
Arsenic	**0.0042**		mg/l	0.0040		0.0046			11	20
Cadmium	**0.0010**	J	mg/l	0.0025		0.0010			1	20
Chromium	**0.0012**	J	mg/l	0.0050		0.0012			4	20
Copper	**0.0269**		mg/l	0.0050		0.0268			0.4	20
Zinc	**0.0389**		mg/l	0.0050		0.0388			0.3	20
Nickel	**0.0357**		mg/l	0.0050		0.0342			4	20
Matrix Spike (1617160-MS1)			**Source: SC26674-08**		Prepared: 07-Oct-16 Analyzed: 10-Oct-16					
Cadmium	**1.32**		mg/l	0.0025	1.25	0.0010	105	75-125		
Arsenic	**1.46**		mg/l	0.0040	1.25	0.0046	116	75-125		
Chromium	**1.29**		mg/l	0.0050	1.25	0.0012	103	75-125		
Copper	**1.41**		mg/l	0.0050	1.25	0.0268	111	75-125		
Nickel	**1.30**		mg/l	0.0050	1.25	0.0342	101	75-125		
Zinc	**1.36**		mg/l	0.0050	1.25	0.0388	106	75-125		
Matrix Spike Dup (1617160-MSD1)			**Source: SC26674-08**		Prepared: 07-Oct-16 Analyzed: 10-Oct-16					
Chromium	**1.29**		mg/l	0.0050	1.25	0.0012	103	75-125	0.08	20
Zinc	**1.37**		mg/l	0.0050	1.25	0.0388	106	75-125	0.4	20
Copper	**1.42**		mg/l	0.0050	1.25	0.0268	111	75-125	0.4	20
Cadmium	**1.35**		mg/l	0.0025	1.25	0.0010	108	75-125	3	20
Arsenic	**1.51**		mg/l	0.0040	1.25	0.0046	120	75-125	4	20
Nickel	**1.36**		mg/l	0.0050	1.25	0.0342	106	75-125	4	20
Post Spike (1617160-PS1)			**Source: SC26674-08**		Prepared: 07-Oct-16 Analyzed: 10-Oct-16					
Arsenic	**1.34**		mg/l	0.0040	1.25	0.0046	106	80-120		
Nickel	**1.20**		mg/l	0.0050	1.25	0.0342	93	80-120		
Zinc	**1.24**		mg/l	0.0050	1.25	0.0388	96	80-120		
Copper	**1.30**		mg/l	0.0050	1.25	0.0268	102	80-120		
Cadmium	**1.19**		mg/l	0.0025	1.25	0.0010	95	80-120		
Chromium	**1.17**		mg/l	0.0050	1.25	0.0012	94	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617159 - SW846 3005A										
Blank (1617159-BLK1)					Prepared: 07-Oct-16 Analyzed: 11-Oct-16					
Cadmium	**0.00002**	J	mg/l	0.000007						
Copper	< 0.00440		mg/l	0.00440						
Arsenic	< 0.00055		mg/l	0.00055						
LCS (1617159-BS1)					Prepared: 07-Oct-16 Analyzed: 11-Oct-16					
Copper	**0.0471**		mg/l	0.00440	0.0500		94	85-115		
Cadmium	**0.0433**		mg/l	0.000007	0.0500		87	85-115		
Arsenic	**0.0454**		mg/l	0.00055	0.0500		91	85-115		
LCS Dup (1617159-BSD1)					Prepared: 07-Oct-16 Analyzed: 11-Oct-16					
Arsenic	**0.0473**		mg/l	0.00055	0.0500		95	85-115	4	20
Cadmium	**0.0439**		mg/l	0.000007	0.0500		88	85-115	2	20
Copper	**0.0478**		mg/l	0.00440	0.0500		96	85-115	1	20
Duplicate (1617159-DUP1)			**Source: SC26674-05**		Prepared: 07-Oct-16 Analyzed: 11-Oct-16					
Copper	**0.00439**	J,R06	mg/l	0.00440		0.00428			2	20
Arsenic	< 0.00055	R01	mg/l	0.00055		BRL				20
Cadmium	**0.00007**	J	mg/l	0.000007		0.00006			2	20
Matrix Spike (1617159-MS1)			**Source: SC26674-05**		Prepared: 07-Oct-16 Analyzed: 11-Oct-16					
Arsenic	**0.0482**		mg/l	0.00055	0.0500	BRL	96	75-125		
Cadmium	**0.0432**		mg/l	0.000007	0.0500	0.00006	86	75-125		
Copper	**0.0479**		mg/l	0.00440	0.0500	0.00428	87	75-125		
Matrix Spike Dup (1617159-MSD1)			**Source: SC26674-05**		Prepared: 07-Oct-16 Analyzed: 11-Oct-16					
Cadmium	**0.0417**		mg/l	0.000007	0.0500	0.00006	83	75-125	3	20
Copper	**0.0472**		mg/l	0.00440	0.0500	0.00428	86	75-125	1	20
Arsenic	**0.0476**		mg/l	0.00055	0.0500	BRL	95	75-125	1	20
Post Spike (1617159-PS1)			**Source: SC26674-05**		Prepared: 07-Oct-16 Analyzed: 11-Oct-16					
Copper	**0.0493**		mg/l	0.00440	0.0500	0.00428	90	80-120		
Cadmium	**0.0441**		mg/l	0.000007	0.0500	0.00006	88	75-125		
Arsenic	**0.0498**		mg/l	0.00055	0.0500	BRL	100	75-125		
Batch 1617328 - SW846 3005A										
Blank (1617328-BLK1)					Prepared: 07-Oct-16 Analyzed: 11-Oct-16					
Zinc	< 0.0050		mg/l	0.0050						
Nickel	< 0.0050		mg/l	0.0050						
Copper	< 0.0050		mg/l	0.0050						
Chromium	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0002		mg/l	0.0002						
Arsenic	< 0.0040		mg/l	0.0040						
LCS (1617328-BS1)					Prepared: 07-Oct-16 Analyzed: 10-Oct-16					
Arsenic	**1.39**		mg/l	0.0040	1.25		111	85-115		
Nickel	**1.39**		mg/l	0.0050	1.25		111	85-115		
Copper	**1.38**		mg/l	0.0050	1.25		110	85-115		
Zinc	**1.35**		mg/l	0.0050	1.25		108	85-115		
Chromium	**1.37**		mg/l	0.0050	1.25		109	85-115		
Cadmium	**1.42**		mg/l	0.0002	1.25		114	85-115		
LCS Dup (1617328-BSD1)					Prepared: 07-Oct-16 Analyzed: 10-Oct-16					
Nickel	**1.43**		mg/l	0.0050	1.25		115	85-115	3	20
Zinc	**1.35**		mg/l	0.0050	1.25		108	85-115	0.5	20
Arsenic	**1.41**		mg/l	0.0040	1.25		113	85-115	2	20
Cadmium	**1.44**	QC2	mg/l	0.0002	1.25		116	85-115	2	20
Copper	**1.37**		mg/l	0.0050	1.25		110	85-115	0.5	20
Chromium	**1.38**		mg/l	0.0050	1.25		110	85-115	0.5	20
Duplicate (1617328-DUP1)			**Source: SC26674-22**		Prepared: 07-Oct-16 Analyzed: 10-Oct-16					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1617328 - SW846 3005A										
Duplicate (1617328-DUP1)			**Source: SC26674-22**			Prepared: 07-Oct-16 Analyzed: 10-Oct-16				
Copper	**0.0014**	J	mg/l	0.0050		0.0014			4	20
Nickel	**0.0220**		mg/l	0.0050		0.0220			0.2	20
Chromium	**0.0158**		mg/l	0.0050		0.0160			2	20
Cadmium	**0.0006**	J	mg/l	0.0002		0.0006			8	20
Arsenic	< 0.0040		mg/l	0.0040		BRL				20
Zinc	**0.0706**		mg/l	0.0050		0.0712			0.8	20
Matrix Spike (1617328-MS1)			**Source: SC26674-22**			Prepared: 07-Oct-16 Analyzed: 10-Oct-16				
Chromium	**1.39**		mg/l	0.0050	1.25	0.0160	110	75-125		
Cadmium	**1.39**		mg/l	0.0002	1.25	0.0006	111	75-125		
Copper	**1.41**		mg/l	0.0050	1.25	0.0014	113	75-125		
Nickel	**1.38**		mg/l	0.0050	1.25	0.0220	108	75-125		
Zinc	**1.43**		mg/l	0.0050	1.25	0.0712	108	75-125		
Arsenic	**1.44**		mg/l	0.0040	1.25	BRL	115	75-125		
Matrix Spike Dup (1617328-MSD1)			**Source: SC26674-22**			Prepared: 07-Oct-16 Analyzed: 11-Oct-16				
Zinc	**1.40**		mg/l	0.0050	1.25	0.0712	106	75-125	2	20
Arsenic	**1.47**		mg/l	0.0040	1.25	BRL	118	75-125	2	20
Cadmium	**1.43**		mg/l	0.0002	1.25	0.0006	114	75-125	2	20
Chromium	**1.40**		mg/l	0.0050	1.25	0.0160	111	75-125	0.8	20
Copper	**1.43**		mg/l	0.0050	1.25	0.0014	114	75-125	1	20
Nickel	**1.41**		mg/l	0.0050	1.25	0.0220	111	75-125	2	20
Post Spike (1617328-PS1)			**Source: SC26674-22**			Prepared: 07-Oct-16 Analyzed: 11-Oct-16				
Zinc	**1.42**		mg/l	0.0050	1.25	0.0712	108	80-120		
Nickel	**1.36**		mg/l	0.0050	1.25	0.0220	107	80-120		
Copper	**1.40**		mg/l	0.0050	1.25	0.0014	112	80-120		
Chromium	**1.37**		mg/l	0.0050	1.25	0.0160	109	80-120		
Arsenic	**1.43**		mg/l	0.0040	1.25	BRL	115	80-120		
Cadmium	**1.38**		mg/l	0.0002	1.25	0.0006	111	80-120		
Batch 1617545 - SW846 3005A										
Blank (1617545-BLK1)						Prepared: 11-Oct-16 Analyzed: 12-Oct-16				
Zinc	< 0.00500		mg/l	0.00500						
LCS (1617545-BS1)						Prepared: 11-Oct-16 Analyzed: 12-Oct-16				
Zinc	**0.0845**	D	mg/l	0.0500	0.100		85	85-115		
LCS Dup (1617545-BSD1)						Prepared: 11-Oct-16 Analyzed: 12-Oct-16				
Zinc	**0.0901**	D	mg/l	0.0500	0.100		90	85-115	6	20
Duplicate (1617545-DUP1)			**Source: SC26674-02**			Prepared: 11-Oct-16 Analyzed: 12-Oct-16				
Zinc	< 0.00500		mg/l	0.00500		BRL				20
Matrix Spike (1617545-MS1)			**Source: SC26674-02**			Prepared: 11-Oct-16 Analyzed: 12-Oct-16				
Zinc	**0.0826**	D	mg/l	0.0500	0.100	BRL	83	75-125		
Matrix Spike Dup (1617545-MSD1)			**Source: SC26674-02**			Prepared: 11-Oct-16 Analyzed: 12-Oct-16				
Zinc	**0.0894**	D	mg/l	0.0500	0.100	BRL	89	75-125	8	20
Post Spike (1617545-PS1)			**Source: SC26674-02**			Prepared: 11-Oct-16 Analyzed: 12-Oct-16				
Zinc	**0.0861**	D	mg/l	0.0500	0.100	BRL	86	80-120		

Notes and Definitions

D	Data reported from a dilution
E	This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR5	RPD out of acceptance range.
R01	The Reporting Limit has been raised to account for matrix interference.
R06	MRL raised to correlate to batch QC reporting limits.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

J. SC 26674

eurofins | Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 1 of 3

Special Handling:

☒ Standard TAT - 7 to 10 business days 5 Day

☐ Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: Ramboll Environ
3 Carlisle Rd. Suite 210
Westford, MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibinga
Envirite Corporation
PO Box 541
Chappaqua, NY 10514

P.O No.: _____ Quote #: _____

Project No: 08-14218 I
Site Name: Envirite RCRA Landfill
Location: Thomaston State: CT
Sampler(s): Luke C
Dale C

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= _____ 12= _____

List Preservative Code below: 2 4 4

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= Trip Blank X2= Equipment Blank X3= _____

G= Grab C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		VOCs 8260	As, Ca, Cr, Cu, Ni, Zn	Dissolved As, Ca, Cu, Zn (6020)*						Check if chlorinated
26674-01	TB-20161003	10/3/16	0900	G	X1	1					X								☐
-02	EB-20161003		1200		X2	3			1		X		X						☐
-03	DUP-20161003		NA		SW	3			1		X		X						☐
-04	SW-NR-1/20161003		0930		SW	3			1		X		X						☐
-05	SW-NR-2/20161003		1000		SW	3			1		X		X						☐
-06	SW-BB-1/20161003		1100		SW	3			1		X		X						☐
-07	SW-BB-2/20161003		1130		SW	3			1		X		X						☐
-08	MW-44D/20161003		1427		GW	3			1		X	X							☐
-09	MW-43S/20161003		1500		GW	3			1		X	X							☐
-10	MW-43D/20161003	10/3/16	1420	G	GW	3			1		X	X							☐

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☒ Yes ☐ No
☐ Standard ☐ No QC
☒ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☒ Other: CT RCPs CT RSRs
State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:
[signature]	Steph Reid	10/4/16	1420
Steph Reid	[signature]	10/4/16	1620

Temp °C: Observed 2.6; Correction Factor 0; Corrected 2.6; IR ID # 02

☐ EDD format: Environ Equis 4 File
☐ E-mail to: jnoble@ramboll.com
*Freshwater Aquatic Life Criteria, Report J Values

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

/SC26674

eurofins | Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 2 of 3

Special Handling:

[X] Standard TAT - 7 to 10 business days 5 Day

[ ] Rush TAT - Date Needed:

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford, MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibinga
Envirite Corporation
PO Box 591
Chappaqua, NY 10514

P.O No.: Quote #:

Project No: 08-14218 I
Site Name: Envirite RCRA Landfill
Location: Thomaston State: CT
Sampler(s): Luke C
Dale C

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= 12=

List Preservative Code below:

QA/QC Reporting Notes:
* additional charges may appply

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= Trip Blank X2= Equipment Blank X3=

G= Grab C=Compsite

MA DEP MCP CAM Report? [ ] Yes [ ] No
CT DPH RCP Report? [X] Yes [ ] No
[ ] Standard [ ] No QC
[X] DQA*
[ ] ASP A* [ ] ASP B*
[ ] NJ Reduced* [ ] NJ Full*
[ ] Tier II* [ ] Tier IV*
[X] Other CT RCPs, CT RSRs
State-specific reporting standards:

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		VOCs 8260	As, Cd, Cr, Cu, Ni, Zn							Check if chlorinated
26674-11	MW-42S/20161003	10/3/16	1532	G	GW	3			1		X	X							[ ]
-12	TB-20161004	10/4/16	0900		X1	1					X								[ ]
-13	EB-20161004		1200		X2	3			1		X	X							[ ]
-14	DUP-20161004		NA		GW	3			1		X	X							[ ]
-15	MW-41S/20161004		1117			3			1		X	X							[ ]
-16	MW-41D/20161004		0957			3			1		X	X							[ ]
-17	MW-50S/20161004		1245			3			1		X	X							[ ]
-18	MW-53D/20161004		1412			3			1		X	X							[ ]
-19	MW-51D/20161004		0930			3			1		X	X							[ ]
-20	MW-30/20161004	10/4/16	1105	G	GW	3			1		X	X							[ ]

Relinquished by:	Received by:	Date:	Time:	Temp °C
[signature]	Skyler Reid	10/4/16	14:21	Observed 2.6
Skyler Reid	[signature]	10/4/16	1620	Correction Factor 0
				Corrected 2.6
				IR ID # 02

[ ] EDD format: ~~Envirite~~ Environ Equis 4 File
[ ] E-mail to: jnoble@ramboll.com

Condition upon receipt: Custody Seals: [ ] Present [ ] Intact [ ] Broken
[ ] Ambient [X] Iced [ ] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

SC26674 ✓

eurofins | Spectrum Analytical

CHAIN OF CUSTODY RECORD

Special Handling:

☒ Standard TAT - 7 to 10 business days 5 Day

☐ Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford, MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibinga
Envirite Corporation
PO Box 591
Chappaqua, NY 10514

P.O No.: _____ Quote #: _____

Project No: 08-14218 I
Site Name: Envirite RCRA Landfill
Location: Thomaston State: CT
Sampler(s): Luke C
Dale C

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= _____ 12= _____

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= _____ X2= _____ X3= _____

G= Grab C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		VOCs 8260	As, Cd, Cr, Cu, Ni, Zn	HOLD					Check if chlorinated
	List Preservative Code below:										2	4	4					
26674-21	MW-31S/20161004	10/4/16	1300	G	GW	3			1		X	X						☐
↓ -22	MW-31S/20161004 F	10/4/16	1300	G	GW				1				X					☐
																		☐
																		☐
																		☐
																		☐
																		☐
																		☐
																		☐
																		☐

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☒ Yes ☐ No
☐ Standard ☐ No QC
☒ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☒ Other: CT RCPs, CT RSRs
State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:
[signature]	Skyler Reid	10/4/16	14:21
Skyler Reid	[signature]	10/4/16	1620

Temp °C: Observed 2.6; Correction Factor 0; Corrected 2.6; IR ID # 02

☐ EDD format: Environ Equis 4 File
☐ E-mail to: jnoble@ramboll.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

SC26674 ✓

eurofins | Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 3 of 3

Special Handling:

☒ Standard TAT - 7 to 10 business days 5 Day

☐ Rush TAT - Date Needed:

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 60 days unless otherwise instructed.

Report To: Ramboll Environ
3 Carlisle Rd Suite 210
Westford, MA

Telephone #: 603-703-5534
Project Mgr: John Noble

Invoice To: Kris Sibinga
Envirite Corporation
PO Box 591
Chappaqua, NY 10514

P.O No.: Quote #:

Project No: 08-14218 I
Site Name: Envirite RCRA Landfill
Location: Thomaston State: CT
Sampler(s): Luke C
Dale C

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11= 12=

List Preservative Code below: 2 4 4

DW=Dinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1= X2= X3=

G= Grab C=Compsite

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☒ Yes ☐ No
☐ Standard ☐ No QC
☒ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☒ Other: CT RCPs CT RSRs
State-specific reporting standards:

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		VOCs 8260	As, Cd, Cr, Cu, Ni, Zn	Diss. As, Cd HOLD	Cr, Cu, Ni, Zn by 6010					Check if chlorinated	
26674-21	MW-31S/20161004	10/4/16	1300	G	GW	3			1		X	X							☐	added pucliant
↓ -22	MW-31S/20161004 F	10/4/16	1300	G	GW				1				X	X					☐	req 10/5/16
																			☐	
																			☐	
																			☐	
																			☐	
																			☐	
																			☐	
																			☐	
																			☐	

LC

Relinquished by:	Received by:	Date:	Time:	Temp °C
[signature]	Styler Reid	10/4/16	14:21	Observed 2.6
Styler Reid	[signature]	10/4/16	1620	Corecction Factor 0
				Corrected 2.6
				IR ID # 02

☐ EDD format: Environ Equis 4 File
☐ E-mail to: jnoble@ramboll.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

APPENDIX C
DATA VALIDATION REVIEW REPORT – OCTOBER 2016 SAMPLING EVENT

DATA VALIDATION REVIEW

Environmental Monitoring Event – October 2016
Envirite RCRA Facility
Old Waterbury Road
Thomaston, Connecticut

Laboratory Sample Delivery Groups (SDGs): SC26674

Laboratory: Eurofins Spectrum Analytical, Agawam, Massachusetts

Reviewer: Rob Huening **Date Reviewed: November 28, 2016**

This data validation report has been prepared by Ramboll Environ US Corporation (Ramboll Environ) to assess the validity and usability of laboratory analytical data generated from samples collected during the groundwater and surface water monitoring event at the Envirite RCRA Facility in Thomaston, Connecticut, (the "site") from October 3 - 4, 2016. Analytical services for the analysis of 22 aqueous samples were provided by Eurofins Spectrum Analytical, Inc. (Eurofins Spectrum) in Agawam, Massachusetts.

The analytical data were evaluated for quality assurance and quality control (QA/QC) based on the following documents:

- ENVIRON International Corporation Quality Assurance Project Plan (QAPP)/Sampling Analysis Plan (SAP) for the Envirite RCRA Facility, Old Waterbury Road, Thomaston, Connecticut (December 2013);
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008); and
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, (January, 2010).

This report summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness and comparability relative to the project data quality objectives. This report provides a quantitative and qualitative assessment of the data and identifies potential sources of error, uncertainty, and bias that may affect the overall usability of the data.

Per the December 2013 QAPP/SAP, a USEPA Tier I data validation was performed on all laboratory data. Although the QAPP/SAP specified that a minimum of 10% of the data would undergo USEPA Tier II data validation, all of the groundwater and surface water data in SDG SC26674 underwent USEPA Tier II data validation in conjunction with this effort.

The following table summarizes the field samples and quality control samples submitted to the laboratory which underwent Tier II data validation:

Field ID	Sample Type	Lab ID	Matrix	Analyses		
				VOCs	Total Metals	Dissolved Metals
SDG: SC26674						
Surface Water Samples						
TB-20161003	TB	SC26674-01	Aqueous	X	---	---
EB-20161003	EB	SC26674-02	Aqueous	X	---	X
DUP-20161003	FD	SC26674-03	Aqueous	X	---	X
SW-NR-1/20161003	SA	SC26674-04	Aqueous	X	---	X
SW-NR-2/20161003	SA	SC26674-05	Aqueous	X	---	X
SW-BB-1/20161003	SA	SC26674-06	Aqueous	X	---	X
SW-BB-2/20161003	SA	SC26674-07	Aqueous	X	---	X
Groundwater Samples						
MW-44D/20161003	SA	SC26674-08	Aqueous	X	X	---
MW-43S/20161003	SA	SC26674-09	Aqueous	X	X	---
MW-43D/20161003	SA	SC26674-10	Aqueous	X	X	---
MW-42S/20161003	SA	SC26674-11	Aqueous	X	X	---
TB-20161004	TB	SC26674-12	Aqueous	X	---	---
EB/20161004	EB	SC26674-13	Aqueous	X	X	---
DUP/20161004	FD	SC26674-14	Aqueous	X	X	---
MW-41S/20161004	SA	SC26674-15	Aqueous	X	X	---
MW-41D/20161004	SA	SC26674-16	Aqueous	X	X	---
MW-50S/20161004	SA	SC26674-17	Aqueous	X	X	---
MW-53D/20161004	SA	SC26674-18	Aqueous	X	X	---
MW-51D/20161004	SA	SC26674-19	Aqueous	X	X	---
MW-30/20161004	SA	SC26674-20	Aqueous	X	X	---
MW-31S/20161004	SA	SC26674-21	Aqueous	X	X	---
MW-31S/20161004 F	SA	SC26674-22	Aqueous	---	---	X

Sample Type: SA = Sample TB = Trip Blank FD = Field Duplicate EB = Equipment Blank
--- = Analysis was not performed for this analytical parameter
VOCs = Volatile Organic Compounds by USEPA Method SW-846 8260C by Gas Chromatography/Mass Spectrometry (GC/MS) Medium Level.
Total Metals = Arsenic, Barium, Cadmium, Chromium, Copper, Nickel and Zinc by EPA Method 6010C.
Dissolved Metals = Arsenic, Cadmium, Copper, and Zinc by USEPA Method 6020A.

General Overall Assessment:

_____ Data are usable without qualification.

__X__ Data are usable with qualification (noted below).

_____ Some or all data are unusable for any purpose (detailed below).

The data are usable for its intended purpose based on an evaluation of the QC parameters discussed in this report. Some data are qualified as estimated due to the inability to meet all QC criteria.

Data Qualifier Summary

The data are usable for their intended purpose based on an evaluation of the QC parameters discussed in this report. Some data are qualified as estimated due to the inability to meet all QC criteria. The table below summarizes the final qualifications for the analytical data.

Analytes	Parameter	Field Sample IDs	Qualification
Cadmium	6020A	All SW Samples	**UJ**
2,2-Dichloropropene	8260C	All Samples	**J**
1,4-Dioxane	8260C	All Samples	**J**
Freon 113	8260C	All Samples	**J**
Freon 11	8260C	All Samples	**J**
2-Chlorotoluene	8260C	MW-41S/20161004, MW-41D/20161004, MW-50S/20161004, MW-53D/20161004, MW-51D/20161004, MW-30/20161004	**J**
Freon 12	8260C	All Samples	**J**
Vinyl chloride	8260C	All Samples	**J**
Acetone	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Acrylonitrile	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
2-Butanone	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
2-Hexanone	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Tetrahydrofuran	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Tert-Butanol	8260C	All Samples	**J**
1,1-Dichloropropene	8260C	All Samples	**J**
Bromomethane	8260C	All Samples	**J**
Ethyl Tert-butyl Alcohol	8260C	All Samples	**J**
Ethanol	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Cadmium	3005A	MW-31S/20161004 F	**J**

Data Validation Qualifier Codes:
U = Non-detect. The compound was analyzed for, but not detected.
J = Estimated. The associated numerical value is an estimated quantity. The analyte was detected but the reported value may not be accurate or precise.
1 = Estimated due to deficiencies in LCS/LCSD samples
2 = Non-detection due to possible cross-contamination

Case Narrative Comments: Any case narrative comments concerning data qualification were noted below.

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC (Chain of Custody)?

Yes, the laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

2.0 Laboratory Case Narrative, Sample Preservation and Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Samples were received at the Eurofins Spectrum laboratory in good condition. Temperature upon receipt of sample batch was 2.6˚C. Acceptable temperature range is 2 - 6˚C. No action taken.

3.0 Technical Holding Times

Were samples extracted/analyzed within method specific holding time requirements?

Yes. All samples were prepared and/or analyzed within method specific required holding times.

4.0 Blank Contamination

Were any analytes detected in the Method Blanks or Trip Blanks?

There was a detection of dissolved cadmium in the surface water Equipment Blank sample EB-20161003 at an estimated concentration of 0.00002 mg/L. This detection represents a possible indicator of cross-contamination from the filters used to filter the surface water samples in the field for dissolved metals analysis. All samples with analyte results within 5x these blank detection results will are flagged as estimated - non-detections as the result may be due only to cross-contamination. (See summary table for samples qualified)

In addition, dissolved cadmium was detected in a lab method blank sample. This detection represents a possible indicator of cross-contamination within the laboratory environment. All samples with analyte results within 5x these blank detection results will are flagged as estimated - non-detections as the result may be due only to cross-contamination. (See summary table for samples qualified)

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No. The laboratory control sample (LCS) provides information on the accuracy of the analytical method and on the laboratory performance. The following table summarizes the LCS results that were outside the acceptance limits.

LCS ID	Parameter	Analyte	LCS/LCSD (%)	RPD (%)	LCS/LCSD/ RPD Criteria (Recovery %)
1617128 BS/BSD	8260C	2,2-Dichloropropane	**69/**79	-	70-130/20
1617128 BS/BSD	8260C	1,4-Dioxane	**65/**90	**33**	70-130/20
1617128 BS/BSD	8260C	Freon 113	**-**	**24**	70-130/20
1617128 BS/BSD	8260C	Freon 11	-	**23**	70-130/20
1617230 BS/BSD	8260C	Freon 113	-	**24**	70-130/20
1617230 BS/BSD	8260C	2-Chlorotoluene	-	**25**	70-130/20
1617230 BS/BSD	8260C	Freon 12	-	**21**	70-130/20
1617230 BS/BSD	8260C	Freon 11	-	**22**	70-130/20
1617310 BS/BSD	8260C	Vinyl chloride	**67**/75	**-**	70-130/20
1617310 BS/BSD	8260C	Acetone	-	**30**	70-130/20
1617310 BS/BSD	8260C	Acrylonitrile	-	**22**	70-130/20
1617310 BS/BSD	8260C	2-Butanone	-	**25**	70-130/20
1617310 BS/BSD	8260C	2-Chlorotoluene	-	**23**	70-130/20
1617310 BS/BSD	8260C	2-Hexanone	-	**22**	70-130/20
1617310 BS/BSD	8260C	Tetrahydrofuran	-	**25**	70-130/20
1617310 BS/BSD	8260C	Tert-Butanol	-	**30**	70-130/20
1617310 BS/BSD	8260C	1,4-Dioxane	-	**39**	70-130/20
1617310 BS/BSD	8260C	Ethanol	-	**27**	70-130/20
1617328 BS/BSD	3005A	Cadmium	114/116	**-**	85-115/20

ID = Identification LCS/D = Laboratory Control Sample/Duplicate RPD = Relative Percent Difference
% = Percent

Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification and are not shown above. Data qualification of sample results due to LCS recoveries is summarized in the table below. Note, where an analyte result was a non-detection, the “U” qualifier remains, so the final qualification would be estimated non-detect (“UJ”).

Analyte	Parameter	Samples	Qualification
2,2-Dichloropropane	8260C	TB-20161003, EB-20161003, DUP-20161003, SW-NR-1/20161003, SW-NR-2/20161003, SW-BB-1/20161003, SW-BB-2/20161003, MW-44D/20161003, MW-43S/20161003, MW-43D/20161003, MW-42S/20161003, TB-20161004, EB/20161004, DUP/20161004, MW-50S/20161004	**J**
1,4-Dioxane	8260C	TB-20161003, EB-20161003, DUP-20161003, SW-NR-1/20161003, SW-NR-2/20161003, SW-BB-1/20161003, SW-BB-2/20161003, MW-44D/20161003, MW-43S/20161003, MW-43D/20161003, MW-42S/20161003, TB-20161004, EB/20161004, DUP/20161004, MW-50S/20161004	**J**
Freon 113	8260C	TB-20161003, EB-20161003, DUP-20161003, SW-NR-1/20161003, SW-NR-2/20161003, SW-BB-1/20161003, SW-BB-2/20161003, MW-44D/20161003, MW-43S/20161003, MW-43D/20161003, MW-42S/20161003, TB-20161004, EB/20161004, DUP/20161004, MW-50S/20161004, MW-41S/20161004, MW-41D/20161004, MW-53D/20161004, MW-51D/20161004, MW-30/20161004	**J**
Freon 11	8260C	TB-20161003, EB-20161003, DUP-20161003, SW-NR-1/20161003, SW-NR-2/20161003, SW-BB-1/20161003, SW-BB-2/20161003, MW-44D/20161003, MW-43S/20161003, MW-43D/20161003, MW-42S/20161003, TB-20161004, EB/20161004, DUP/20161004, MW-50S/20161004, MW-41S/20161004, MW-41D/20161004, 53D/20161004, MW-51D/20161004, MW-30/20161004	**J**

2-Chlorotoluene	8260C	MW-41S/20161004, MW-41D/20161004, MW-50S/20161004, MW-53D/20161004, MW-51D/20161004, MW-30/20161004	**J**
Freon 12	8260C	MW-41S/20161004, MW-41D/20161004, MW-53D/20161004, MW-51D/20161004, MW-30/20161004	**J**
Vinyl chloride	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Acetone	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Acrylonitrile	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
2-Butanone	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
2-Hexanone	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Tetrahydrofuran	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Tert-Butanol	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Ethanol	8260C	MW-31S/20161004, MW-31S/20161004 F	**J**
Cadmium	3005A	MW-31S/20161004 F	**J**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes. Surrogates are added to all volatile samples prior to purging to evaluate the laboratory performance on individual samples. Four volatile surrogates (dibromofluoromethane, 1,2-dichloroethane-d4, toluene-d8, and bromofluorobenzene) were added to each volatile sample. Percent recoveries (%R) for all volatile surrogates in all samples were within laboratory evaluation criteria with no exceptions.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples reported as part of this SDG?

Yes. A matrix spike was performed from a site-specific sample for all parameters.

Were MS/MSD recoveries within evaluation criteria?

No. Recovery for the compound noted below was low, indicating a possible low bias to data. A summary of samples affected is below. While there were other analytes out of criteria, in those cases the spike level of the MS was <4x the sample concentration, therefore no action was taken. Note, where an analyte result was a non-detection, the

"U" qualifier remains, so the final qualification would be "UJ".

Field ID	Parameter	Analyte	Qualification
All Samples	8260C	1,4-Dioxane	**J**

8.0 Post Spike (Metals only)

Were post spike recoveries within evaluation criteria?

Yes. The post digestive spike recoveries were acceptable. **Therefore qualification of data was not required**.

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples performed as part of this SDG?

Yes, as spiked duplicates, which are discussed in the previous sections. In addition laboratory duplicates were reported for metals and cyanide analysis. Duplicates (besides those discussed above) had acceptable RPDs. **Therefore qualification of data was not required.**

10.0 Field Duplicate Results

Were field duplicate samples collected as part of the evaluated SDGs?
Yes. The table below summarizes field duplicate pairs.

Field ID	Field Duplicate ID
SW-NR-1/20161003	DUP-20161003
MW-41D/20161004	DUP/20161004

Were field duplicates within evaluation criteria?

Yes. All RPD's of reported results were less than the acceptance limits of ±30% for aqueous samples.

11.0 Detects and Calibration Range

For samples that were diluted and non-detect, were undiluted results also reported?

No.

The following table identifies the analyses which were reported as non-detect, diluted, and an undiluted run ***was not*** reported:

Field ID	Parameter	Dilution Factor
MW-53D-20161004	8260C	10
MW-30/20160331	8260C	5
MW-31S/20160331	8260C	200

For samples that were diluted, were the detected results divided by the dilution factors greater than the reporting limits and within calibration range?

Yes. Data users should be aware of the elevated detection limits when evaluating data usage for comparison to project standards.

For samples that were not diluted and detected, were the results within calibration range?

Yes. Samples where results were reported that exceeded the calibration range, were re-analyzed at dilution.

12.0 Additional Qualifications/Quality Control Outliers

Were additional qualifications applied?

- Several VOC analyte percent recoveries for continuing calibration verification (CCV) and Initial Calibration Verification (ICV) were reported as out of criteria in the lab narrative. The out of criteria calibration results indicate possible bias to results. Due to this bias results were validated as estimated (J).

Analyte	Parameter	Samples	Qualification
Freon 113, 1,1-Dichloropropene, 2,2-dichloropropene, Bromomethane, Freon 12, Tert-butanol, Freon 11, Vinyl Chloride, Ethyl tert-butyl alcohol, 1,4-Dioxane	8260C	All samples	**J**

- Several reporting limits were raised to correlate to batch quality control reporting limits. Data users should be aware of these elevated reporting limits when evaluating data usage for comparison to project standards.

13.0 Overall Data Assessment

The data are usable for its intended purpose based on an evaluation of the QC parameters discussed in this report. Some data were qualified as estimated due to the inability to meet all QC criteria. The Data Qualifier Summary table at the front of this document summarizes the final qualifications for the analytical data.