

**First Semi-Annual Progress Report  
Georgia DOT – Gainesville District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759  
S&ME Project No. 4468-14-073A**



Prepared for:  
**Georgia Department of Natural Resources  
Environmental Protection Division  
Land Protection Branch – Response & Remediation Program  
2 Martin Luther King Jr. Dr, SE  
Suite 1054 East  
Atlanta, Georgia 30334**

Prepared by:  
**S&ME, Inc.  
3380 Town Point Dr, Ste 140  
Kennesaw, GA 30144**

**January 30, 2017**



January 30, 2017

Georgia Department of Natural Resources  
Environmental Protection Division  
Land Protection Branch – Response & Remediation Program  
2 Martin Luther King Jr. Dr, SE  
Suite 1054 East  
Atlanta, Georgia 30334

Attention: Mr. Peter Johnson

Reference: **First Semi-Annual Progress Report**  
**Georgia DOT - Gainesville District Office**  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI No. 10759  
S&ME Project No. 4468-14-073A

Dear Mr. Johnson:

S&ME, Inc. (S&ME) is pleased to provide this Progress Report on behalf of Georgia Department of Transportation (GDOT) Office of Materials and Testing for the above-referenced site. One paper copy and two (2) electronic copies of this report are provided in Portable Document Format (PDF) for your use.

Should you have any questions or concerns regarding this report, please contact any of the undersigned at (770) 919-0969.

Sincerely,

**S&ME, Inc.**

  
William J. Wagner, Jr., P.E.  
Project Engineer

  
Peter Fleury, Jr.,  
Senior Project Manager/Senior Reviewer

cc: Mr. Jim Clute, State Facilities Manager, GDOT  
Mr. Reginald Murph, Environmental Testing Branch Supervisor, GDOT



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## 1.0 Introduction

The Georgia Department of Transportation (GDOT) - Gainesville District Office property, hereinafter referred to as the "subject property," is located at 2505 Athens Highway in Gainesville, Hall County, Georgia, and is currently owned and operated by the GDOT. A facility location map and a topographic map detailing the subject property location and surrounding areas are included as Figures 1 and 2, respectively.

The GDOT submitted a Hazardous Site Response Act (HSRA) Release Notification for the subject property in April 2002. Subsequently the Georgia Environmental Protection Division (EPD) assigned the subject property Hazardous Sites Inventory (HSI) No. 10759. The subject property was added to the HSI due to the confirmed release of 1,1,1-trichloroethane (TCA) and other chemical of concerns (COCs) to soil and groundwater at levels exceeding the respective reportable quantity. A site map depicting historical soil borings, groundwater monitoring wells, and injection wells installed during assessment activities is included as Figure 3.

S&ME, on behalf of GDOT, submitted a Voluntary Investigation and Remediation Plan (VIRP), dated November 11, 2015, to the EPD. The EPD responded with comments regarding the VIRP in a correspondence dated February 18, 2016.

This Progress Report addresses the February 2016 EPD Comment Letter and the comprehensive groundwater monitoring event that was performed in October 2016.

## 2.0 Response to EPD Comments

The EPD comments outlined in the EPD Comment letter, dated February 18, 2016, followed by the affiliated responses, is provided in Appendix I. A copy of the referenced EPD letter is also included in this appendix.

Supplemental information is discussed in the following sections of this report. Specifically, information/findings associated with the comprehensive groundwater monitoring event.

## 3.0 Current Investigation

### 3.1 Monitoring Well Installation

S&ME mobilized to the site on October 6, 2016 to observe the installation of one Type II shallow monitoring well (MW-9R) and one Type III deep monitoring well (MW-14D) for further delineation purposes.

Monitoring well MW-9R was advanced to auger refusal at approximately 40 feet below ground surface (bgs) using a 4.25-inch inner diameter (ID) hollow stem auger. The monitoring well was constructed using 10 feet of 0.010-inch slotted two-inch diameter Schedule 40 PVC screen and two-inch diameter solid Schedule 40 PVC riser to within 2.5-inches of the ground surface elevation (gse).



Monitoring well MW-14D was initially advanced to a couple of feet within bedrock at approximately 59 feet bgs using an 8.25 inch ID hollow stem auger. On October 7, 2016, the outer casing which consisted of a 6-inch diameter solid Schedule 40 PVC riser to within 6-inches of gse was set and grouted in place. On October 10, 2016, the installation of monitoring well MW-14D continued by air hammering to a total depth of 76 feet bgs. The monitoring well was constructed using 10 feet of 0.010-inch slotted two-inch diameter Schedule 40 PVC screen and two-inch diameter solid Schedule 40 PVC riser to within 6-inches of the gse.

Location of the new monitoring wells are depicted on Figure 3. Well construction diagrams for monitoring wells MW-9R and MW-14D are provided as Appendix II.

### ***3.1.1 Monitoring Well Development***

Well development of monitoring wells MW-9R and MW-14D was conducted using down-hole whale pumps. Each monitoring well was developed by removing approximately 10 well volumes of groundwater from the well. Development water was temporarily containerized in properly labeled 55-gallon DOT-approved steel drums.

### ***3.1.2 Investigation Derived Waste (IDW) and Handling***

Soil cuttings and development water were containerized in properly labeled 55-gallon DOT-approved steel drums (a total of 15 drums) and temporarily stored onsite until disposal. The drummed soil and development water were transported offsite and disposed of by Aqua-Terra on November 17, 2016. A copy of the Non-Hazardous Waste Manifests and Certificate of Treatment are included as Appendix III.

## **3.2 Surface Water Sampling**

S&ME mobilized to the site on October 25, 2016 to collect surface water samples along the small streams located near the eastern and southeastern portion of the property and a small pond located at southeastern portion of the property. A total of three surface water samples (SW-1 through SW-3) were collected into laboratory supplied containers in general accordance with surface water sampling method described in the U.S. SESD Athens, Georgia, Surface Water Sampling Operating Procedure (SESDPROC-201-R3, February 2013) guidance document. The surface water locations are depicted on Figure 4. The samples were transported in laboratory-supplied coolers to ESC Lab Sciences (ESC) in Mount Juliet, Tennessee for the analysis of volatile organic compounds (VOCs) using EPA Method 8260B. A sample was not collected at the ponded location due to being dry.

### ***3.2.1 Surface Water Sampling Results***

The VOC 1,1-dichloroethene (DCE) was detected in the surface water sample collected from location SW-1 at a concentration of 0.00278 milligram per liter (mg/L) which is below the Georgia In-stream Water Quality Standard (ISWQS) of 7.10 mg/L. Surface water analytical results are summarized on Table 1. The laboratory analytical reports are provided in Appendix IV.



### **3.3 Groundwater Sampling**

#### *3.3.1 Analytical Parameters Selected and Rationale*

##### **3.3.1.1 Groundwater Samples**

The contaminants detected in groundwater at the subject property are primarily halogenated VOCs. The groundwater samples collected during the most recent investigations conducted at the subject property by S&ME in October 2016 were analyzed for VOCs using EPA Method 8260B.

##### **3.3.1.2 IDW Samples**

Analytical results obtained from groundwater samples collected during the recent groundwater sampling events were used for waste characterization.

#### *3.3.2 Groundwater Depth Measurements*

Depths to groundwater were measured at various times during groundwater sampling activities using an electronic water level gauge. At a minimum, depths to groundwater were measured immediately prior to purging each well to determine minimum purge volumes.

The depth to groundwater data was used in constructing a potentiometric surface map for the respective aquifer (shallow and deep) at the subject property and estimating groundwater flow direction for the same aquifer. The groundwater flow direction at the site, based on the October 2016 gauging data, was generally to the northeast, which is consistent with historical events. Potentiometric Surface Maps for the October 2016 gauging event are included as Figures 5A (Shallow Aquifer) and Figure 5B (Deep Aquifer).

Historical and recent depths to groundwater measurements are summarized on Table 2.

#### *3.3.3 Groundwater Sampling Methodology and Locations*

##### **3.3.3.1 Equipment and Collection Techniques-Groundwater Monitoring Wells**

S&ME attempted to collect groundwater samples from the monitoring wells in general accordance with the low-flow purging method described in the U.S. SESD Athens, Georgia, Groundwater Sampling Operating Procedure (SESDPROC-301-R3, March 2013) guidance document.

During the October 2016 sampling event a Grundfos Redi-Flo 2, submersible, variable performance, pump with converter was used to conduct low-flow purging and sampling in each of the groundwater monitoring wells, if feasible. New, dedicated, Teflon-lined tubing was used to purge/sample groundwater at each monitoring well.

During the sampling and monitoring event, pump surfaces coming into contact with groundwater, were decontaminated prior to use at each monitoring well using the procedures discussed in Section 3.3.7 of this report.

Depth to groundwater was measured at each monitoring well prior to purging for sampling. Initially, the pump intake was placed mid-screen. Depth to water was measured frequently during the purging



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process. Temperature, specific conductivity, pH and turbidity were measured approximately every 5 to 20 minutes during purging. Instruments used to measure purging parameters were calibrated a minimum of once a day prior to use using standard calibration fluids prepared and supplied by the manufacturer.

When applicable, samples were collected after stabilization of the intrinsic parameters had occurred. Parameter stabilization consisted of three consecutive measurements with:

- ◆ Temperature within + 0.5 degree Celsius (oC),
- ◆ pH within + 0.1 Standard Units (SUs),
- ◆ Specific conductance [milliseconds per centimeter (ms/cm)] within 10%, and
- ◆ Turbidity <10 NTUs (in some cases the turbidity did not reduce to this level).

If depth to groundwater could not be maintained within +0.3 feet or if a steady flow of water from the sampling tubing could not be maintained while maintaining a steady depth to groundwater, the well was either:

- ◆ Purged of three to five well volumes of water using the applicable pump and sampled with the pump and tubing once intrinsic parameters had stabilized. Parameters were measured after the removal of each well volume, or
- ◆ Pumped or bailed dry (due to slow recharge rates), and allowed to recharge before sampling with the purging pump or teflon bailer.

Groundwater samples were collected either immediately after purging (e.g. during low flow sampling) or by end of the purging day if the well was purged dry or a sufficient volume of water remained in the well for sampling after purging had occurred.

Copies of purging/sampling records and field notes are provided in Appendix V. Deviations from standard operating procedures were noted in purging/sampling records or field notes along with justification for deviations. Purge volumes are summarized on Table 3A. Intrinsic parameter readings collected during purging activities are summarized on Table 3B.

### *3.3.4 Filling of Bottles for VOC Analysis*

Care was taken to insure that preservative was not lost due to overfilling of the vials. The vials were filled until a reverse meniscus was created at the top of each vial and the vial caps were placed directly over the vial opening and tightened. Vials were then visually checked for air bubbles by turning upside down and gently tapping against the arm.

### *3.3.5 Groundwater Sample Analysis and Handling*

Groundwater samples were handled in general accordance with the U.S. EPA, Region 4, SESD, Athens, Georgia, Field Sampling Quality Control (SESDPROC-011-R2, January 2008) guidance document.

#### 3.3.5.1 Chain-of-Custody Procedures

Samples were labeled with the name of the facility, sample date, sample time, sample location, and sampler's name. At the completion of the sampling event, the samples were transported in laboratory-supplied coolers to ESC in Mount Juliet, Tennessee. Each transfer of custody was documented with an appropriate signature, date, and time on the chain-of-custody.



### **3.3.5.2      Laboratory Analytical Techniques**

Samples collected for VOC analyses were analyzed using EPA Methods 8260B.

### ***3.3.6      Field Quality Assurance/Quality Control Samples***

The following Quality Assurance/Quality Control samples were collected and analyzed as follows.

#### **3.3.6.1    Blind Duplicate Groundwater Samples**

Duplicate groundwater samples were collected at approximately 10% of the sampling locations during the October 2016 sampling event.

Blind, duplicate, groundwater samples were collected by collecting twice as much material as normally collected for a sample from any one location/interval. The material was then apportioned into two sets of containers. One of the sets of containers was designated as the "original sample", and the second set of containers was designated as the "duplicate sample". "Duplicate samples" were labeled with a false name and sampling time. Actual sample locations, dates, and times were recorded in the investigation field book(s) for all the samples as well as the false names and sample times for the "duplicate samples". Both the "original samples" and the "duplicate samples" were analyzed by ESC in Mount Juliet, Tennessee. "Duplicate" groundwater samples were analyzed for the same constituents as the "original samples" in general accordance with the SESDPROC-011-R2 guidance document.

The duplicate samples were collected to measure sample handling variability, intra-laboratory precisions and to estimate the variability of a given characteristic or contaminant associated with a population.

#### **3.3.6.2    Equipment Blanks**

Equipment blanks were collected and analyzed in general accordance with the SESDPROC-011-R2 guidance document.

#### **3.3.6.3    Temperature Blanks**

A container of D.I. water, prepared by ESC, was placed in each sample cooler containing groundwater, or QA/QC samples at the time of sample collection and was submitted with the samples to the laboratory. The temperature blanks were tested for temperature by the laboratory upon sample receipt to determine if samples were maintained at the proper temperature.

QA/QC samples collected during the recent monitoring activities conducted by S&ME, along with analytical methods, are summarized on Table 4. Sample/cooler non-conformances and resolutions for the QA/QC samples are also summarized on Table 4.

### ***3.3.7      Decontamination Procedures***

Groundwater samples were collected using an electric submersible pump with Teflon-lined tubing. Reusable groundwater metal or glass sampling equipment was field decontaminated as follows:

- ◆ First stage: Scrubbing with a detergent and potable water (or distilled water) mixture;
- ◆ Second stage: Rinsing twice with potable water (or distilled water);



- ◆ Third stage: Rinsing twice with laboratory-grade, analyte-free, deionized water;

Decontaminated equipment was then allowed to air dry completely. If the equipment was not to be used immediately after air drying, it was covered with plastic. All plastic (polyethylene) or Teflon® sampling equipment used during the investigation was new, dedicated, single use and factory-sealed.

### 3.3.8 *IDW Handling*

Purged groundwater and decontamination water were containerized in properly labeled 55-gallon DOT-approved steel drums (a total of 3 drums) and temporarily stored onsite until disposal. Drummed water was transported offsite and disposed of by Aqua-Terra on November 17, 2016. A copy of the Non-Hazardous Waste Manifest is included as Appendix III.

## 4.0 Groundwater Analytical Results

Groundwater was collected from monitoring wells MW 1D through MW-4D, MW 10D, MW-14D, MW-1, MW-2, MW-4, MW-6 through MW-8, MW-9R, and MW-11 through MW-13 in October 2016. Monitoring wells MW-5 and MW-10 were not sampled because they were dry and/or an insufficient amount of water was available to collect a sample. The laboratory analytical reports are provided in Appendix VI.

### 4.1 Volatile Organic Compounds

The VOCs TCE, PCE, 1,4-Dioxane, 1,1,2-Trichloroethane (TCA), 1,1-DCE, 1,1-Dichloroethane (DCA), and 1,1,1-TCA and were detected in the groundwater samples collected during the October 2016 sampling event. The following monitoring wells reported VOC constituents above the site-specific RRSs:

- ◆ MW-3D: 1,4 Dioxane (0.112 mg/L); and
- ◆ MW-13: PCE (0.0120 mg/L)

Sample locations, laboratory used, requested analyses, and analytical results for the groundwater samples are summarized on Table 5; which also summarize historical groundwater analytical results. Current groundwater analytical results in relation to applicable RRSs are summarized in Table 6. Groundwater analytical results (VOCs) from the October 2016 sampling event are illustrated on Figure 6A (Shallow Aquifer) and Figure 6B (Deep Aquifer).

## 5.0 Conclusions

No surface water samples resulted in concentrations above the applicable ISWQS.

Compared to the previous groundwater monitoring event (October 2014), VOC concentrations in groundwater samples showed decreasing trends. Only selected concentrations in monitoring wells MW-3D and MW-13 resulted in concentrations above applicable Type 3 or 4 RRSs.

VOC delineation appears to be delineated to the east, south and west. Only the VOC constituent of 1,4-Dioxane is shown not delineated (below Type 1 RRS) to the north/northwest of the subject property.



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Additionally, potentiometric data indicates the water table has dropped an average of 1.52 feet since the October 2014 event except in monitoring wells MW-1D, MW-2D, and MW-10D (rose an average of 0.63 feet).

## 6.0 Recommendations

S&ME recommends an additional groundwater sampling event be conducted. The recommended groundwater sampling event will be limited to include monitoring wells MW-1, MW-2, MW-2D, MW-3D, MW-4, MW-4D, MW-6 through MW-8, MW-9R, MW-13, and MW-14D.



## **7.0 Groundwater Scientist and Certification Statement**

We certify that we are qualified groundwater scientists who have received baccalaureate or post-graduate degrees in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable us to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

We further certify that this report (Progress Report for Georgia Department of Transportation, HSI Site No. 10759, 2505 Athens Highway, Gainesville, Hall County, Georgia) was prepared by us and appropriate qualified professionals working under our direction in accordance with a system designed to ensure that qualified personnel properly evaluated the information submitted. Based on our inquiry of the persons who prepared this report, the information submitted is, to the best of our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

  
\_\_\_\_\_  
William J. Wagner, Jr., P.E.

State of Georgia Professional Engineer No. 031309

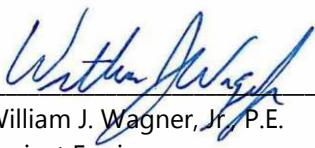
1/30/207

Date



## 8.0 Electronic Report Copy Certification

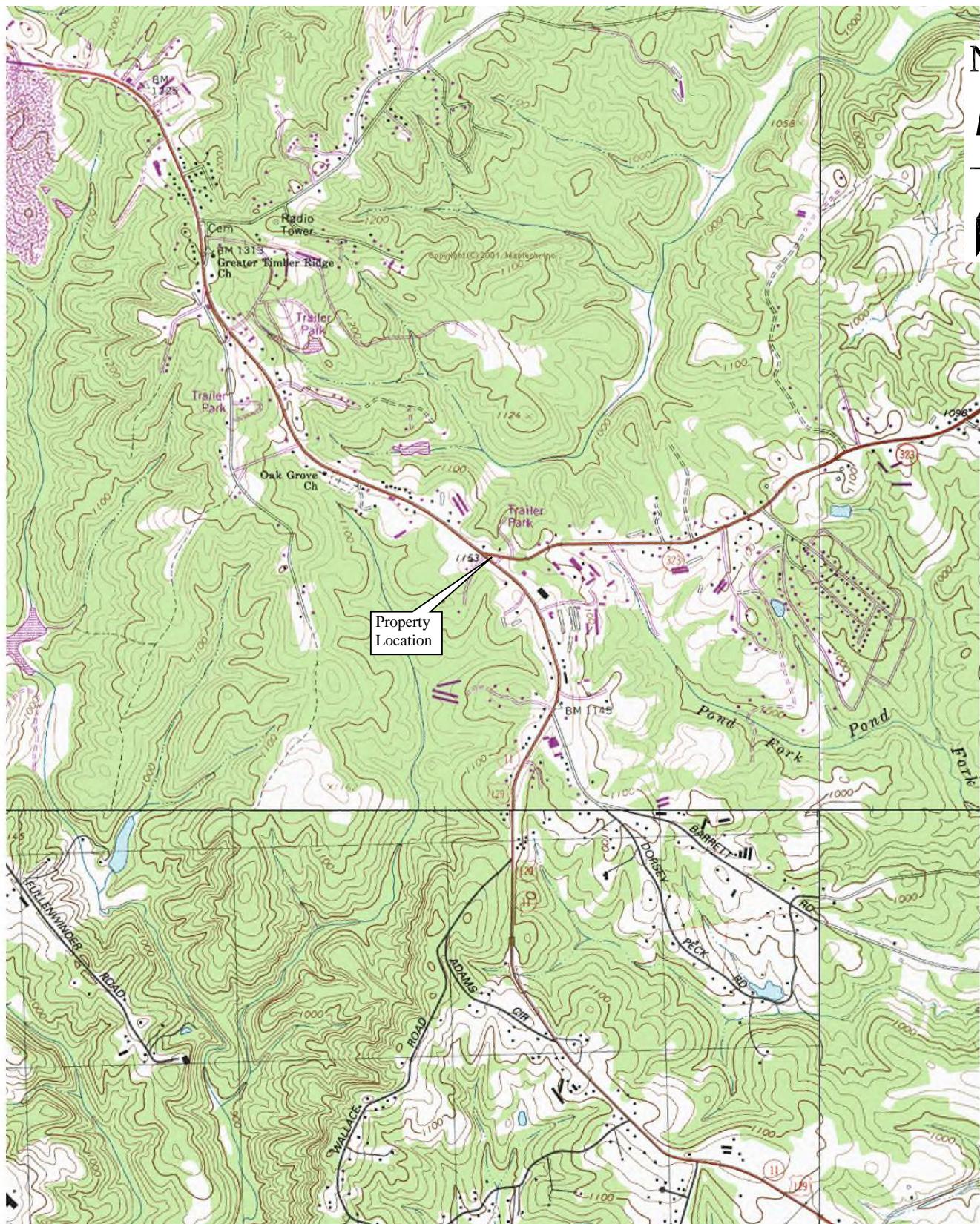
I certify that the enclosed report (Progress Report for Georgia Department of Transportation, HSI Site No. 10759, 2505 Athens Highway, Gainesville, Hall County, Georgia) and associated data files, provided on two (2) compact discs (CDs) in Portable Document Format (PDF), are complete and identical to the paper copy of the report submitted concurrently with these CDs and are virus free.

  
\_\_\_\_\_  
William J. Wagner, Jr. P.E.  
Project Engineer  
S&ME, Inc.

1/30/17

Date

## **Figures**



Source: 1964 Gainesville, GA Quadrangle Map, Revised 1985

SCALE: 1:24000

CHECKED BY: PF

DRAWN BY: BJW

DATE: 11-16-16



### USGS Topographic Map

Project: Georgia DOT-District Office  
Location: 2505 Athens Hwy, Gainesville, Hall County, Georgia  
Number: 4468-14-073A

Figure No.  
**1**



SOURCE: GOOGLE EARTH IMAGE, 10/22/2014

LEGEND

— - - PROPERTY BOUNDARY

SCALE  
0 350 FT.

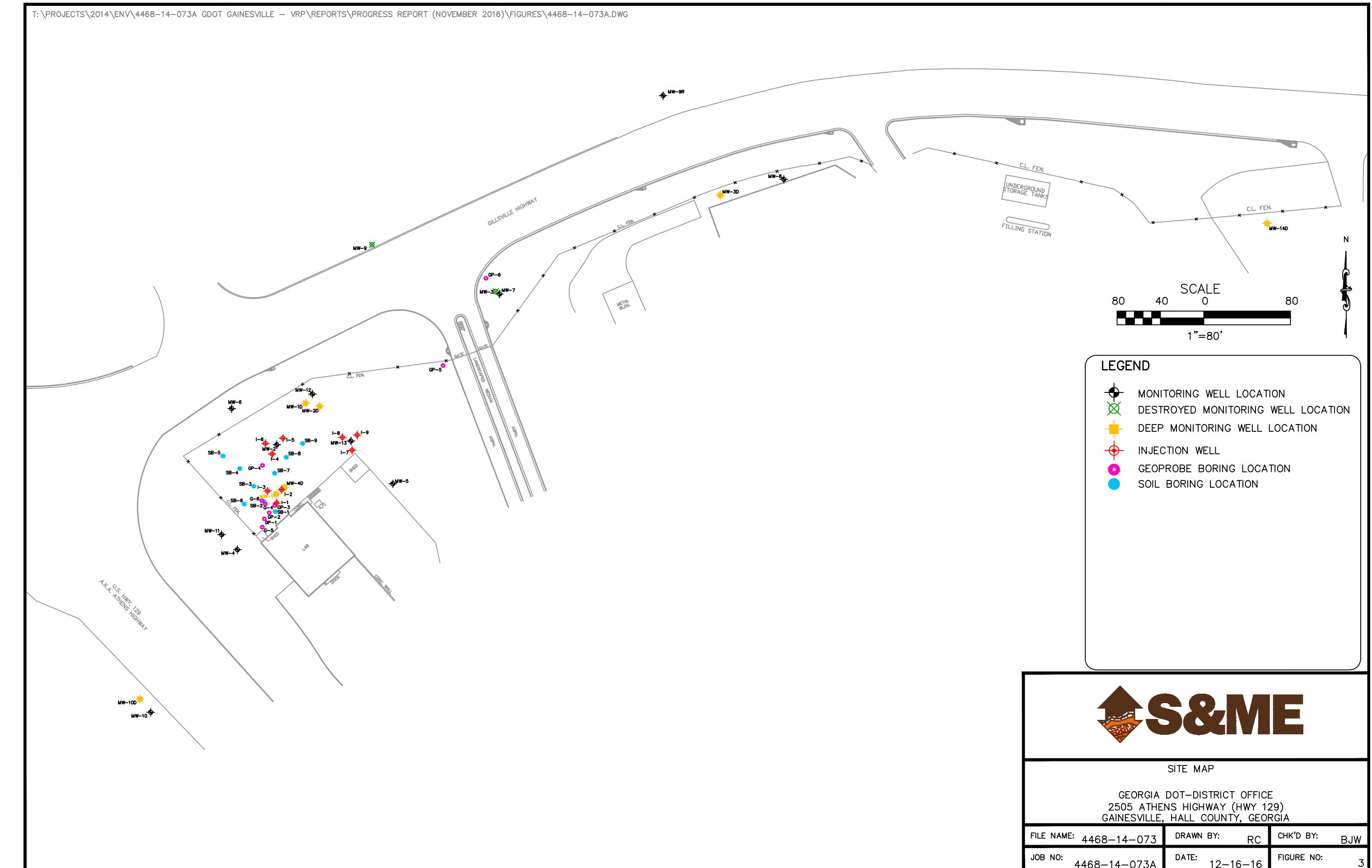


SCALE: AS SHOWN  
APPROVED BY: BJW  
DRAWN BY: RC  
DATE: 11-16-16

 S&ME

AERIAL MAP  
GEORGIA DOT-DISTRICT OFFICE  
2505 ATHENS HIGHWAY (HWY 129)  
GAINESVILLE, HALL COUNTY, GEORGIA  
JOB NO: 4468-14-073A

FIGURE NO.  
2





SOURCE: GOOGLE EARTH IMAGE, 10/22/2014

LEGEND

- PROPERTY BOUNDARY
- SURFACE WATER SAMPLE LOCATION
- DCE 1,1-DICHLOROETHENE (mg/L)

SCALE  
0 350 FT.

SCALE:	AS SHOWN
APPROVED BY:	BJW
DRAWN BY:	RC
DATE:	11-16-16



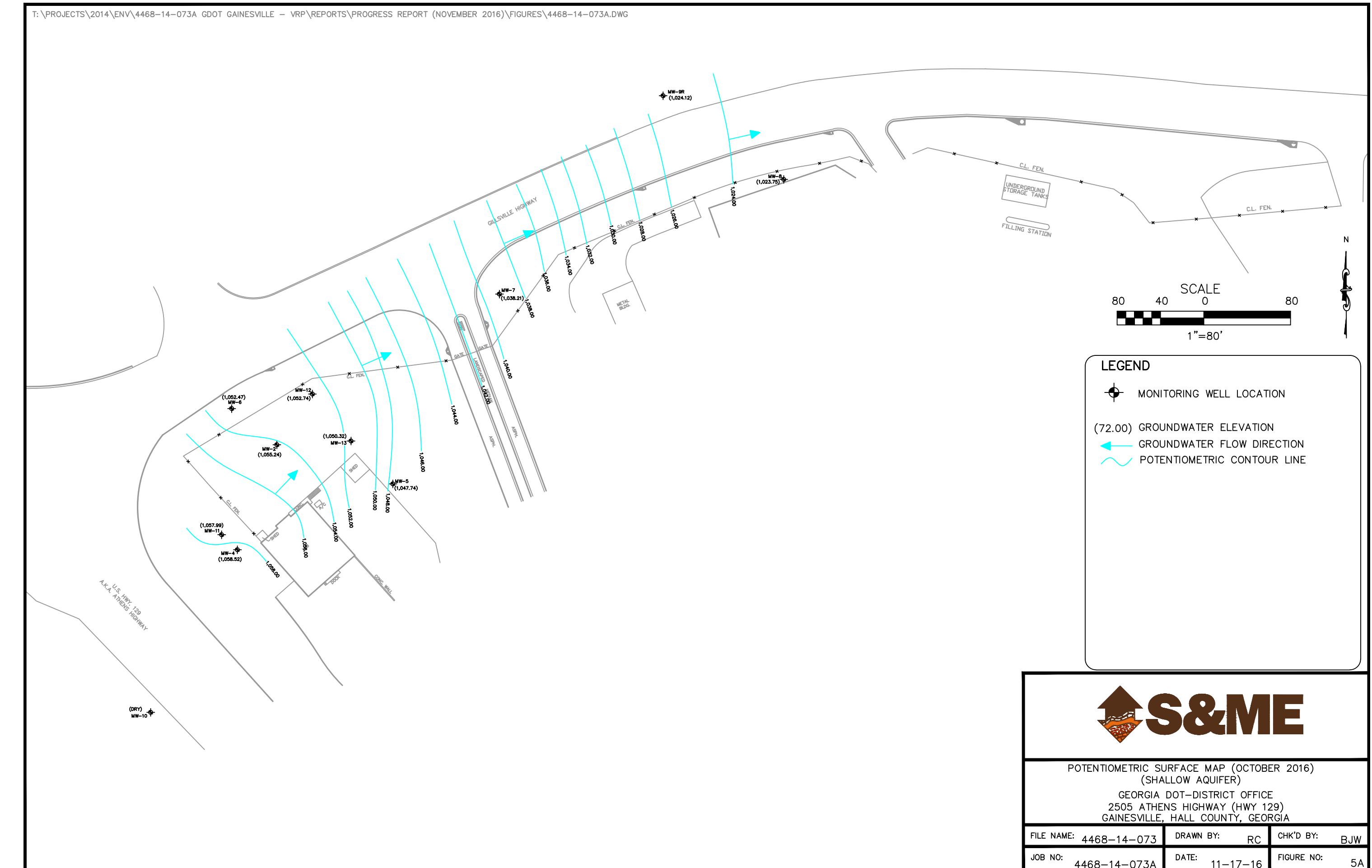
## SURFACE WATER LOCATION MAP

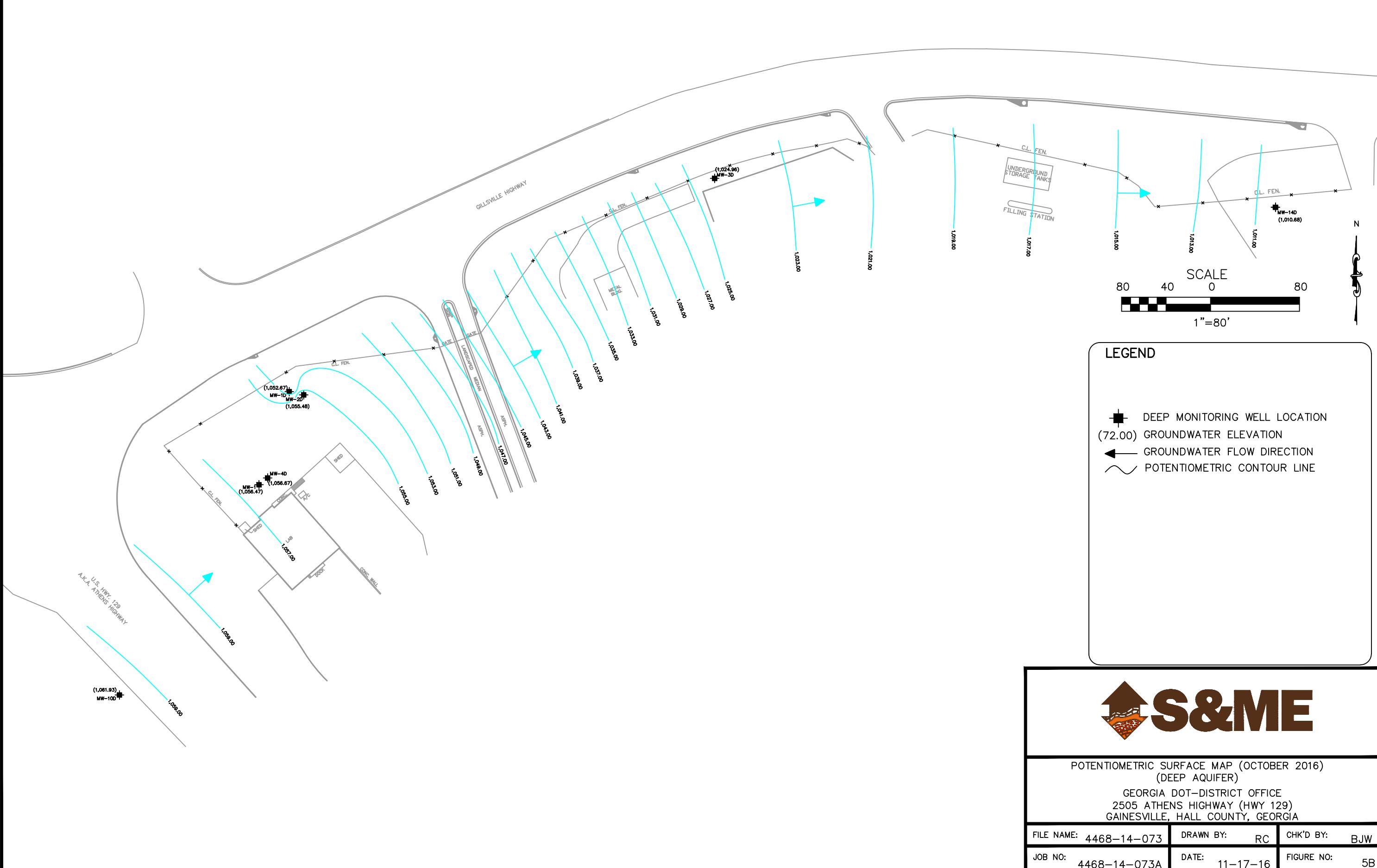
GEORGIA DOT-DISTRICT OFFICE  
2505 ATHENS HIGHWAY (HWY 129)  
GAINESVILLE, HALL COUNTY, GEORGIA

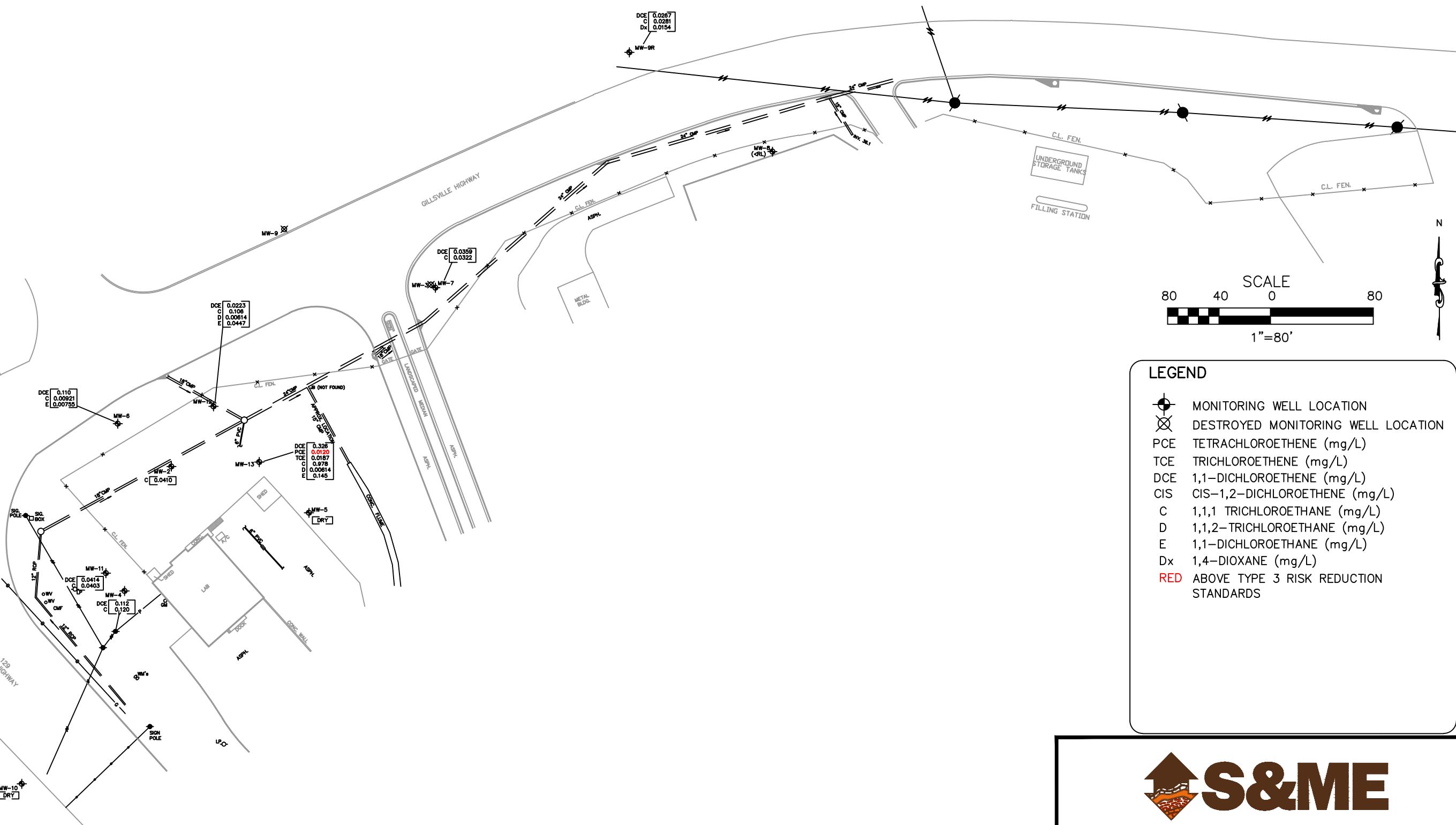
JOB NO: 4468-14-073A

FIGURE NO.

4







# GROUNDWATER QUALITY MAP (OCTOBER 2016) (SHALLOW AQUIFER)

GEORGIA DOT-DISTRICT OFFICE  
2505 ATHENS HIGHWAY (HWY 129)  
GAINESVILLE, HALL COUNTY, GEORGIA

FILE NAME: 4468-14-073	DRAWN BY: RC	CHK'D BY: BJW
JOB NO: 4468-14-073A	DATE: 12-16-16	FIGURE NO: 6A



**LEGEND**

- DESTROYED MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- DCE 1,1-DICHLOROETHENE (mg/L)
- C 1,1,1 TRICHLOROETHANE (mg/L)
- E 1,1-DICHLOROETHANE (mg/L)
- Dx 1,4-DIOXANE (mg/L)
- RL REPORTING LIMIT
- RED ABOVE TYPE 3 RISK REDUCTION STANDARDS

**S&ME**

GROUNDWATER QUALITY MAP (OCTOBER 2016)  
(DEEP AQUIFER)

GEORGIA DOT-DISTRICT OFFICE  
2505 ATHENS HIGHWAY (HWY 129)  
GAINESVILLE, HALL COUNTY, GEORGIA

FILE NAME: 4468-14-073	DRAWN BY: RC	CHK'D BY: BJW
JOB NO: 4468-14-073A	DATE: 12-16-16	FIGURE NO: 6B

## **Tables**

**Table 1**  
**Surface Water Analytical Results**

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
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Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)
<b>Georgia In-stream Water Quality Standards</b>						NA	0.0024	7.10	NA	0.590	NA	NA	0.470	0.528	0.0016	0.037	0.030	0.016	0.0033
SW-1	SW-1	S&ME	ESC	10/25/2016	EPA 8260B	NA	<0.00100	<b>0.00278</b>	<0.0500	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
SW-2	SW-2	S&ME	ESC	10/25/2016	EPA 8260B	NA	<0.00100	<0.00100	<0.0500	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
SW-3	SW-3	S&ME	ESC	10/25/2016	EPA 8260B	NA	<0.00100	<0.00100	<0.0500	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

Notes: The above table presents VOC constituents detected in at least one sample.

Results reported on a dry weight basis.

Analysis of VOC constituents not presented in the above table were reported below the laboratory detection limit.

Results reported in milligram per Liter (mg/L)

DCE = Dichloroethene

DCA = Dichloroethane

TCA = Trichloroethane

TCE = Trichloroethene

PCE = Tetrachloroethene

NA = Not Analyzed/Not Applicable

NS = Not Sampled

results above laboratory reporting limits

**Table 2**  
**Historical Groundwater Elevations**

**Georgia Department of Transportation-District Office**  
**HSI Site #10759**  
**2505 Athens Highway (HWY 129)**  
**Gainesville, Hall County, Georgia**

Monitoring Well ID	Date	TOC Elevation (ft.)	TOC Feet in Relation to Surface <sup>(1)</sup>	Surface Elevation (ft.)	Depth to Water (ft BTOC)	Depth to Water (ft BGS)	Screen Elevations (ft MSL)		Groundwater Elevation (ft.) <sup>(3)</sup>
							Top	Bottom	
MW-1D <sup>(2)</sup>	8/17/2006	1,087.80	-0.20	1,088.00	34.59	34.79	1,031.00	1,021.00	1,053.21
	1/20/2009				42.20	42.40			1,045.60
	1/18/2010				36.97	37.17			1,050.83
	4/12/2011				36.18	36.38			1,051.62
	8/2/2011				37.12	37.32			1,050.68
	1/23/2012				39.02	39.22			1,048.78
	10/27/2014				35.60	35.80			1,052.20
	10/24/2016				35.13	35.33			1,052.67
MW-2D <sup>(2)</sup>	8/17/2006	1,086.08	-0.32	1,086.40	34.11	34.43	1,016.40	1,006.40	1,051.97
	1/20/2009				37.50	37.82			1,048.58
	1/18/2010				32.47	32.79			1,053.61
	4/12/2011				32.66	32.98			1,053.42
	8/2/2011				32.83	33.15			1,053.25
	1/23/2012				34.21	34.53			1,051.87
	10/27/2014				31.87	32.19			1,054.21
	10/24/2016				30.60	30.92			1,055.48
MW-3D <sup>(2)</sup>	8/17/2006	1,050.13	2.83	1,047.30	46.48	43.65	1,006.30	996.30	1,003.65
	1/20/2009				30.98	28.15			1,019.15
	1/18/2010				23.02	20.19			1,027.11
	4/12/2011				24.55	21.72			1,025.58
	8/2/2011				25.94	23.11			1,024.19
	1/23/2012				29.00	26.17			1,021.13
	10/27/2014				21.43	18.60			1,028.70
	10/24/2016				25.21	22.38			1,024.92
MW-4D <sup>(2)</sup>	1/18/2010	1,096.45	-0.10	1,096.55	39.69	39.79	1,036.55	1,026.55	1,056.76
	4/12/2011				40.93	41.03			1,055.52
	8/2/2011				41.25	41.35			1,055.20
	1/23/2012				42.76	42.86			1,053.69
	10/27/2014				39.57	39.67			1,056.88
	10/24/2016				39.78	39.88			1,056.67
MW-10D <sup>(4)</sup>	8/17/2006	1,096.89	-0.41	1,097.30	31.48	31.89	1,057.30	1,047.30	1,065.41
	1/20/2009				39.79	40.20			1,057.10
	1/18/2010				34.12	34.53			1,062.77
	4/12/2011				36.25	36.66			1,060.64
	8/2/2011				36.38	36.79			1,060.51
	1/23/2012				37.36	37.77			1,059.53
	10/27/2014				35.10	35.51			1,061.79
	10/24/2016				34.96	35.37			1,061.93
MW-14D	10/24/2016	1,017.78	-0.46	1,018.24	7.10	7.56	952.54	942.54	1,010.68
MW-1	9/26/2001	1,100.99	3.39	1,097.60	46.20	42.81	1,057.60	1,037.60	1,054.79
	8/17/2006				44.11	40.72			1,056.88
	1/20/2009				49.69	46.30			1,051.30
	1/18/2010				44.24	40.85			1,056.75
	1/19/2011				44.73	41.34			1,056.26
	4/12/2011				45.72	42.33			1,055.27
	8/2/2011				45.90	42.51			1,055.09
	1/23/2012				47.20	43.81			1,053.79
	10/27/2014				40.68	37.29			1,060.31
	10/24/2016				44.52	41.13			1,056.47
MW-2	9/26/2001	1,094.94	2.84	1,092.10	42.05	39.21	1,042.10	1,032.10	1,052.89
	8/17/2006				39.73	36.89			1,055.21
	1/20/2009				45.45	42.61			1,049.49
	1/18/2010				39.73	36.89			1,055.21
	1/19/2011				39.88	37.04			1,055.06
	4/12/2011				40.94	38.10			1,054.00
	8/2/2011				41.15	38.31			1,053.79
	1/23/2012				42.71	39.87			1,052.23
	10/27/2014				30.05	27.21			1,064.89
	10/24/2016				39.70	36.86			1,055.24

**Table 2**  
**Historical Groundwater Elevations**

**Georgia Department of Transportation-District Office**  
**HSI Site #10759**  
**2505 Athens Highway (HWY 129)**  
**Gainesville, Hall County, Georgia**

Monitoring Well ID	Date	TOC Elevation (ft.)	TOC Feet in Relation to Surface <sup>(1)</sup>	Surface Elevation (ft.)	Depth to Water (ft BTOC)	Depth to Water (ft BGS)	Screen Elevations (ft MSL)		Groundwater Elevation (ft.) <sup>(3)</sup>
							Top	Bottom	
MW-3	9/26/2001 8/17/2006	UNK		36.68 ABANDONED	NA	43.00	53.00	NA	
MW-4	8/17/2006	1,099.32	-0.28	1,099.60	40.43	40.71	1,061.60	1,051.60	1,058.89
	1/20/2009				46.09	46.37			1,053.23
	1/18/2010				40.36	40.64			1,058.96
	1/19/2011				41.24	41.52			1,058.08
	4/12/2011				42.03	42.31			1,057.29
	8/2/2011				42.19	42.47			1,057.13
	1/23/2012				43.54	43.82			1,055.78
	10/27/2014				40.45	40.73			1,058.87
	10/24/2016				40.80	41.08			1,058.52
	8/17/2006				40.52	40.64			1,047.36
MW-5	1/20/2009	1,087.88	-0.12	1,088.00	40.12	40.24	1,057.50	1,047.50	1,047.76
	1/18/2010				36.55	36.67			1,051.33
	1/19/2011				40.11	40.23			1,047.77
	4/12/2011				40.25	40.37			1,047.63
	8/2/2011				DRY	40.18			DRY
	1/23/2012					40.30			1,047.70
	10/27/2014					40.25			1,047.75
	10/24/2016					40.14			1,047.74
MW-6	8/17/2006	1,095.40	-0.20	1,095.60	42.76	42.96	1,057.60	1,047.60	1,052.64
	1/20/2009				DRY	NA			DRY
	1/18/2010					45.16			1,050.24
	1/19/2011					43.37			1,052.03
	4/12/2011					44.38			1,051.02
	8/2/2011					45.04			1,050.36
	1/23/2012					46.68			1,048.72
	10/27/2014					42.76			1,052.64
	10/24/2016					42.93			1,052.47
MW-7	8/17/2006	1,072.75	-0.15	1,072.90	34.77	34.92	1,026.90	1,016.90	1,037.98
	1/20/2009				37.79	1,034.96			
	1/18/2010				33.06	1,039.69			
	4/12/2011				35.10	1,037.65			
	8/2/2011				34.71	1,038.04			
	1/23/2012				35.78	1,036.97			
	10/27/2014				34.25	1,038.50			
	10/24/2016				34.54	1,038.21			
MW-8	8/17/2006	1,043.66	-0.14	1,043.80	20.07	20.21	1,018.80	1,008.80	1,023.59
	1/20/2009				25.56	1,018.10			
	1/18/2010				18.03	1,025.63			
	4/12/2011				18.95	1,024.71			
	8/2/2011				20.57	1,023.09			
	1/23/2012				23.19	1,020.47			
	10/27/2014				19.18	1,024.48			
	10/24/2016				19.91	1,023.75			
MW-9	8/17/2006 1/20/2009	1,081.91	-0.19	1,082.10	17.95	18.14	1,037.10	1,027.10	1,063.96
MW-9R	10/24/2016	1,054.05	-0.21	1,054.26	29.93	30.14	1,025.48	1,015.48	1,024.12
MW-10	8/17/2006	1,096.92	-0.18	1,097.10	DRY	NA	1,071.10	1,063.10	NA
	1/20/2009				33.00	33.18			1,063.92
	1/18/2010				31.16	31.34			1,065.76
	4/12/2011				32.90	33.08			1,064.02
	8/2/2011				32.92	33.10			1,064.00
	1/23/2012				33.19	33.37			1,063.73
	10/27/2014				32.80	32.98			1,064.12
	10/24/2016				DRY				DRY

**Table 2**  
**Historical Groundwater Elevations**

**Georgia Department of Transportation-District Office**  
**HSI Site #10759**  
**2505 Athens Highway (HWY 129)**  
**Gainesville, Hall County, Georgia**

Monitoring Well ID	Date	TOC Elevation (ft.)	TOC Feet in Relation to Surface <sup>(1)</sup>	Surface Elevation (ft.)	Depth to Water (ft BTOC)	Depth to Water (ft BGS)	Screen Elevations (ft MSL)		Groundwater Elevation (ft.) <sup>(3)</sup>
							Top	Bottom	
MW-11	1/18/2010	1,098.79	-0.61	1,099.40	40.93	41.54	1,063.40	1,048.40	1,057.86
	1/19/2011				41.25	41.86			1,057.54
	4/12/2011				41.56	42.17			1,057.23
	8/2/2011				41.82	42.43			1,056.97
	1/23/2012				43.39	44.00			1,055.40
	10/27/2014				40.39	41.00			1,058.40
	10/24/2016				40.80	41.41			1,057.99
MW-12	1/18/2010	1,086.30	-0.49	1,086.79	33.56	34.05	1,066.79	1,051.79	1,052.74
	1/19/2011				33.52	34.01			1,052.78
	4/12/2011				DRY	DRY			DRY
	8/2/2011				33.86	34.35			DRY
	1/23/2012				33.55	34.04			1,052.44
	10/27/2014				33.56	34.05			1,052.75
	10/24/2016								1,052.74
MW-13	1/18/2010	1,087.15	-0.45	1,087.60	34.37	34.82	1,062.60	1,047.60	1,052.78
	1/19/2011				37.11	37.56			1,050.04
	4/12/2011				37.61	38.06			1,049.54
	8/2/2011				37.24	37.69			1,049.91
	1/23/2012				39.02	39.47			1,048.13
	10/27/2014				36.34	36.79			1,050.81
	10/24/2016				36.83	37.28			1,050.32

Notes:

TOC = Top of Well Casing

BGS = Below Ground Surface

NG = Not Gauged

(1) = Negative number indicates a flush-mounted well completion. Positive number indicates an aboveground well completion. Elevations surveyed relative to mean sea level by Barton Surveying, Inc. of Woodstock, GA.

(2) = Well completed in bedrock as an ASTM Type III deep aquifer well.

(3) = Elevations relative to TOC Elevation.

(4) = Well completed in bedrock as an ASTM Type II shallow aquifer well.

**Table 3A**  
**Recent Groundwater Monitoring Well Sampling Purge Volumes**  
**Georgia Department of Transportation-District Office**  
**HSI Site #10759**  
**2505 Athens Highway**  
**Gainesville, Hall County, Georgia**

Monitoring Well ID	Date Purged	Well Diameter (inches)	Depth to Groundwater (ft BTOC)	Well Total Depth (ft BTOC)	Height of Water Column (ft)	Water Volume per foot of height (gallons)	Water Volume in Well (gallons)	Three Well Volumes of Water (gallons)	Actual Purged Volume (gallons)
MW-1D <sup>(2)</sup>	10/25/2016	2	35.13	65.13	30.00	0.163	4.9	14.7	3.0 <sup>(6)</sup>
MW-2D <sup>(2)</sup>	10/25/2016	2	30.60	75.05	44.45	0.163	7.2	21.7	8.0 <sup>(6)</sup>
MW-3D <sup>(2)</sup>	10/26/2016	2	25.21	52.63	27.42	0.163	4.5	13.4	2.5 <sup>(6)</sup>
MW-4D <sup>(2)</sup>	10/24/2016	2	39.78	69.81	30.03	0.163	4.9	14.7	1.0 <sup>(6)</sup>
MW-10D <sup>(4)</sup>	10/26/2016	2	34.96	45.41	10.45	0.163	1.7	5.1	2.0 <sup>(1)</sup>
MW-14D <sup>(2)</sup>	10/25/2016	2	7.10	75.24	68.14	0.163	11.1	33.3	11.5 <sup>(6)</sup>
MW-1 <sup>(4)</sup>	10/24/2016	2	44.52	63.30	18.78	0.163	3.1	9.2	3.0 <sup>(6)</sup>
MW-2	10/25/2016	2	39.70	51.63	11.93	0.163	1.9	5.8	10.0 <sup>(7)</sup>
MW-4	10/24/2016	2	40.80	47.68	6.88	0.163	1.1	3.4	2.5 <sup>(6)</sup>
MW-5	10/24/2016	2			Dry				<sup>(5)</sup>
MW-6	10/25/2016	2	42.93	47.18	4.25	0.163	0.7	2.1	0.50 <sup>(3)</sup>
MW-7	10/25/2016	2	34.54	53.91	19.37	0.163	3.2	9.5	15.5 <sup>(7)</sup>
MW-8	10/26/2016	2	19.91	33.73	13.82	0.163	2.3	6.8	10.0 <sup>(7)</sup>
MW-9R	10/26/2016	2	29.93	38.51	8.58	0.163	1.4	4.2	8.0 <sup>(7)</sup>
MW-10	10/24/2016	2			Dry				<sup>(5)</sup>
MW-11	10/24/2016	2	40.80	50.97	10.17	0.163	1.7	5.0	4.75 <sup>(6)</sup>
MW-12	10/25/2016	2			Dry				<sup>(5)</sup>
MW-13	10/24/2016	2	36.73	39.53	2.80	0.163	0.5	1.4	0.75 <sup>(6)</sup>

Notes:

(1) = Purged and sampled using a dedicated, disposable Teflon® bailer, well went dry before three well volumes removed.

(2) = Monitoring well completed in bedrock as a ASTM Type III deep aquifer well.

(3) = Groundwater sample was collected following the first set of parameter readings due to the well going dry.

(4) = Monitoring well completed in bedrock as an ASTM Type II shallow aquifer well.

(5) = Not enough water, considered dry.

(6) = Sampled taken based on three consecutive parameter readings

(7) = Sample taken after purging 5 well volumes (three consecutive parameter readings; however, turbidity still greater than 10)

ft BTOC = Feet below top of casing.

**Table 3B**  
**Intrinsic Groundwater Sampling Parameters**  
**Georgia Department of Transportation-District Office**  
**HSI Site #10759**  
**2505 Athens Highway**  
**Gainesville, Hall County, Georgia**

Monitoring Well ID	Well Diameter (inches)	Date Sampled	Equipment			Calculated Well Volume - in Field (gal)	Time	Purged Volume (gallons)	Readings						Comments	
			Purging	Readings	Sample Collection				Depth to Water (ft BTOC)	pH (SUs)	Temperature (°C)	Conductivity (ms/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)	
MW-1D	2	10/26/2016	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	4.9	1110	Initial	35.13	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.	
							1200	3.0	39.22	6.75	23.08	0.281	5.8	121	3.28	Parameters were collected prior to collection of groundwater to be submitted for analysis.
MW-2D	2	10/25/2016	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	7.3	0925	Initial	30.60	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.
							1040	8.0	48.52	6.91	21.36	0.279	9.7	235	3.41	Parameters were collected prior to collection of groundwater to be submitted for analysis.
MW-3D	2	10/26/2016	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	4.5	0900	Initial	25.21	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.
							0935	2.5	29.02	6.95	20.05	0.287	4.1	93	2.14	Parameters were collected prior to collection of groundwater to be submitted for analysis.
MW-4D	2	10/24/2016	Pine Environmental Rental: Grundfos Redi-Flo2 Pump #: 11482 with Polyethylene Bladder/Teflon® -lined tubing	1. Pine Rental: Horiba U52 Water Quality Meter, #: 21120 2. Pine Rental: Solinst Water Level Meter, #: 24933	Pine Environmental Rental: Grundfos Redi-Flo2 Pump #: 11482 with Polyethylene Bladder/Teflon® -lined tubing	4.5	1523	Initial	39.78	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.
							1610	1.0	46.41	6.81	22.80	5.71	12.3	-37	0.00	Parameters were collected prior to collection of groundwater to be submitted for analysis.
MW-10D	2	10/26/2016	Teflon Bailer	NA	Teflon Bailer	1.7	1200	2.0	34.96	NM	NM	NM	NM	NM	NM	Due to safety concerns along major roadway, a bailer was used for purging and sampling.
MW-14D	2	10/25/2016	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	11.1	1510	Initial	7.10	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.
							1555	11.0	7.32	5.92	19.91	0.149	0.0	218	5.22	Parameters were collected prior to collection of groundwater to be submitted for analysis.
MW-1	2	10/24/2016	Pine Environmental Rental: Grundfos Redi-Flo2 Pump #: 11482 with Polyethylene Bladder/Teflon® -lined tubing	1. Pine Rental: Horiba U52 Water Quality Meter, #: 21120 2. Pine Rental: Solinst Water Level Meter, #: 24933	Pine Environmental Rental: Grundfos Redi-Flo2 Pump #: 11482 with Polyethylene Bladder/Teflon® -lined tubing	3.0	1440	Initial	44.52	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.
							1451	3.0	47.72	6.47	23.54	0.355	3.3	152	3.79	Parameters were collected prior to collection of groundwater to be submitted for analysis.
MW-2	2	10/24/2016	Pine Environmental Rental: Grundfos Redi-Flo2 Pump #: 11482 with Polyethylene Bladder/Teflon® -lined tubing	1. Pine Rental: Horiba U52 Water Quality Meter, #: 21120 2. Pine Rental: Solinst Water Level Meter, #: 24933	Pine Environmental Rental: Grundfos Redi-Flo2 Pump #: 11482 with Polyethylene Bladder/Teflon® -lined tubing	1.9	0905	Initial	39.70	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.
							1214	10.0	41.53	8.24	34.09	0.486	51.1	69	2.42	Parameters were collected prior to collection of groundwater to be submitted for analysis.
MW-4	2	10/24/2016	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon® -lined tubing	1.1	1040	Initial	40.80	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.
							1125	2.5	--	5.71	22.51	0.165	9.0	249	5.71	Well went dry and/or not recharging, Parameters were collected prior to collection of groundwater to be submitted for analysis.

**Table 3B**  
**Intrinsic Groundwater Sampling Parameters**  
**Georgia Department of Transportation-District Office**  
**HSI Site #10759**  
**2505 Athens Highway**  
**Gainesville, Hall County, Georgia**

Monitoring Well ID	Well Diameter (inches)	Date Sampled	Equipment			Calculated Well Volume - in Field (gal)	Time	Purged Volume (gallons)	Readings							Comments	
			Purging	Readings	Sample Collection				Depth to Water (ft BTOS)	pH (SUs)	Temperature (°C)	Conductivity (ms/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)		
MW-5	2	10/24/2016	NA	NA	NA	NA	NA	NA	--	NM	NM	NM	NM	NM	NM	Well was gauged; however not enough water available to collect a groundwater sample.	
MW-6	2	10/26/2016	Teflon Bailer	NA	Teflon Bailer	0.7	--	Initial	42.93	NM	NM	NM	NM	NM	NM	Well was gauged; however, not enough water to operate pump; therefore, a bailer was used for purging and sampling. No readings collected.	
MW-7	2	10/25/2016	Pine Environmental Rental: Grundfos Redi-Flo2 Pump #: 11482 with Polyethylene Bladder/Teflon®-lined tubing  1. Pine Rental: Horiba U52 Water Quality Meter, #: 21120 2. Pine Rental: Solinst Water Level Meter, #: 24933	Pine Environmental Rental: Grundfos Redi-Flo2 Pump #: 11482 with Polyethylene Bladder/Teflon®-lined tubing  1. Pine Rental: Horiba U52 Water Quality Meter, #: 21120 2. Pine Rental: Solinst Water Level Meter, #: 24933	3.1	1531	Initial	34.54	NM	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.	
									1838	15.0	37.96	4.43	25.81	0.155	211.0	307	3.85
MW-8	2	10/26/2016	Teflon Bailer	NA	Teflon Bailer	2.2	0805	Initial	19.91	NM	NM	NM	NM	NM	NM	NM	Well was gauged; however, pump malfunctioned; therefore, a bailer was used for purging and sampling. No readings collected.
MW-9R	2	10/26/2016	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon®-lined tubing  1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon®-lined tubing  1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	1.4	1120	Initial	29.93	NM	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.	
									1200	8.0	30.22	6.12	21.00	0.168	132.0	180	2.37
MW-10	2	10/24/2016	NA	NA	NA			NA	NA	32.80	NM	NM	NM	NM	NM	NM	Well was gauged and found to be DRY; therefore no groundwater sample was collected.
MW-11	2	10/24/2016	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon®-lined tubing  1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon®-lined tubing  1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	1.7	1325	Initial	40.80	NM	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.	
									1440	4.8	41.53	6.01	25.43	0.143	59.5	222	6.22
MW-12	2	10/25/2016	Teflon Bailer	NA	Teflon Bailer	NA	NA	NA	DRY	NM	NM	NM	NM	NM	NM	NM	Well was gauged; however, not enough water to operate pump; therefore, a bailer was used for purging and sampling. No readings collected.
MW-13	2	10/24/2016	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon®-lined tubing  1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	S&ME: Grundfos Redi-Flo 2 Pump: A1A106003 with Polyethylene Bladder/Teflon®-lined tubing  1. Pine Rental: Horiba U52 Water Quality Meter, #: 19530 2. Pine Rental: Solinst Water Level Meter, #: 252823	0.4	1600	Initial	36.83	NM	NM	NM	NM	NM	NM	NM	Depth to groundwater prior to installation of purging/sampling pump.	
									1635	0.5	--	6.62	24.71	0.369	9.8	182	2.62

Notes:

**Table 4**  
**Field QA/QC Sample Summary**  
**Georgia Department of Transportation-District Office**  
**HSI Site #10759**  
**2505 Athens Highway**  
**Gainesville, Hall County, Georgia**

Field QA/QC Sample ID	Date of Collection	Associated Soil and/or Groundwater Samples	Laboratory for the QA/QC Samples Only	Analyses (QA/QC Samples)		Containers	Detected Constituents	Sample/Sample QA/QC Non-Conformance	Sample/Sample QA/QC Non-Conformance Resolution
				VOCs					
<b>Equipment Blanks</b>									
Equipment	10/26/2016	MW-9R, MW-11, MW-3D	ESC	X	2-40 ml VOA vials - HCL preservative	None Detected	Not Applicable	Not Applicable	
<b>Split/Duplicates</b>									
MW-25D	10/24/2016	MW-4	ESC	X	2-40 ml VOA vials - HCL preservative	See Table 6A	Not Applicable	Not Applicable	
MW-35D	10/25/2016	MW-14D	ESC	X	2-40 ml VOA vials - HCL preservative	See Table 6A	Not Applicable	Not Applicable	

Notes:

QA/QC = Quality Assurance/Quality Control  
AES = Analytical Environmental Services, Inc.  
NA = Not Applicable

**Table 5**  
**Historical Groundwater Analytical Results**

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)
<b>Risk Reduction Standards</b>						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005
G-9	G-9	GDOT	GDOT	2/5/1988	EPA 8260A	NA								<b>0.761</b>	NA				
G-10	G-10					NA								<0.0050	NA				
G-11	G-11					NA								<0.0050	NA				
G-12	G-12					NA								<0.0050	NA				
G-13	G-13					NA								<0.0050	NA				
MW-1D <sup>(6)</sup>	MW-1D	aquaFusion	AES	6/7/2006	EPA 8260B	NA	<0.0020	<b>0.020</b>	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.093</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<b>0.056</b>	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.032</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<b>0.042</b>	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.039</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<b>0.023</b>	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.013</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<b>0.026</b>	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.018</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
		S&ME	NA	1/24/2012	NA	NS													
						<0.150	<0.0020	<b>0.016</b>	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.0055</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.100	<0.00200	<b>0.00600</b>	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
						<0.100	<0.00200	<b>0.00600</b>	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
						<0.150	<0.0020	<b>0.00600</b>	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
						<0.150	<0.0020	<b>0.00600</b>	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
						<0.150	<0.0020	<b>0.00600</b>	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-2D <sup>(6)</sup>	MW-2D	aquaFusion	AES	8/17/2006	EPA 8260B	NA	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.0050</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.0050</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.0050</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.0050</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.0050</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.0050</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.0050</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
MW-2D <sup>(6)</sup>	MW-2D	S&ME	NA	1/24/2012	NA	NS													
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.0050</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
						<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

**Table 5**  
**Historical Groundwater Analytical Results**

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)
<b>Risk Reduction Standards</b>						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005
MW-3D <sup>(6)</sup>	MW-3D	aquaFusion	AES	EPA 8260B	8/17/2006	NA	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<b>0.026</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					1/28/2009	<0.150	<b>0.0032</b>	<b>0.150</b>	<0.050	<0.0050	<b>0.014</b>	<0.0050	<0.0050	<b>0.039</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					1/19/2010	<0.150	<0.0020	<b>0.056</b>	<0.050	<0.0050	<b>0.0062</b>	<0.0050	<0.0050	<b>0.013</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					4/14/2011	<b>0.210</b>	<0.0020	<b>0.089</b>	<0.050	<0.0050	<b>0.0092</b>	<0.0050	<0.0050	<b>0.013</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	MW-3D (Duplicate)	S&ME	AES	EPA 8260B	8/2/2011	<b>0.210</b>	<0.0020	<b>0.094</b>	<0.050	<0.0050	<b>0.010</b>	<0.0050	<0.0050	<b>0.014</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	MW-3D				1/26/2012	<0.150	<0.0020	<b>0.053</b>	<0.050	<0.0050	<0.0050	<0.0050	<b>0.016</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	MW-X (Duplicate)				10/30/2014	<0.150	<0.0020	<b>0.140</b>	<0.050	<0.0050	<b>0.011</b>	<0.0050	<0.0050	<b>0.016</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	MW-3D				10/26/2016	<b>0.190</b>	<0.0020	<b>0.044</b>	<0.050	<0.0050	<b>0.0055</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
		ESC				<b>0.112</b>	<0.00200	<b>0.0375</b>	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-4D	MW-4D	S&ME	AES	EPA 8260B	1/25/2010	<0.150	<0.0020	<b>0.010</b>	<0.050	<0.0050	<0.0050	<0.0050	<b>0.020</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					4/13/2011	<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<b>0.0080</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					8/4/2011	<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<b>0.0076</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
		NA	1/24/2012	NA										NS					
		AES	10/28/2014	EPA 8260B	<0.150	<0.0020	<b>0.0097</b>	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<b>0.031</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
		ESC	10/24/2016		<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<b>0.0162</b>	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

**Table 5**  
**Historical Groundwater Analytical Results**

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)		
<b>Risk Reduction Standards</b>						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005		
MW-10D <sup>(6)</sup>	MW-10R	aquaFusion	AES	8/17/2006	EPA 8260B	NA	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<b>0.022</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		
	MW-10D			1/29/2009		<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		
	MW-25D (Duplicate)			1/25/2010		<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		
	MW-10D	S&ME		4/14/2011		<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		
				8/3/2011		<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		
				NA		NA	NS														
			AES	1/24/2012	NA	<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
				10/31/2014		<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-14D	MW-14D	S&ME	ESC	10/25/2016	EPA 8260B	<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	MW-35D (duplicate)					<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
	MW-14D			11/16/2016		<b>0.00344</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	MW-1	Earth Tech	Test America	9/26/2001	EPA 8260B	NA	<0.0020	<b>1.9</b>	<0.050	<0.0050	<b>0.0212</b>	<b>0.0082</b>	<0.0020	<b>3.370</b>	<b>0.0038</b>	<b>0.0198</b>	<b>0.0479</b>	<b>0.0042</b>	<0.0020		
	MW-1 (duplicate)					NA	<0.0020	<b>2.01</b>	<0.050	<0.0050	<b>0.0221</b>	<b>0.0083</b>	<0.0020	<b>3.690</b>	<b>0.0040</b>	<b>0.0203</b>	<b>0.0499</b>	<b>0.0042</b>	<0.0020		
	MW-1	aquaFusion		1/9/2006		NA	<0.0020	<b>1.700</b>	<0.050	<0.0050	<b>0.0084</b>	<b>0.0099</b>	<0.0050	<b>2.800</b>	<0.0050	<0.0050	<b>0.068</b>	<b>0.0089</b>	<0.0050		
				1/23/2009		<0.150	<0.0020	<b>1.100</b>	<0.050	<0.0050	<b>0.029</b>	<b>0.0046 (J)</b>	<b>0.0024 (J)</b>	<b>2.000</b>	<0.0050	<b>0.0072</b>	<b>0.0530</b>	<b>0.043</b>	<b>0.0057</b>		
				1/21/2010		<0.150	<0.0020	<b>0.580</b>	<0.050	<0.0050	<b>0.010</b>	<0.0050	<0.0050	<b>0.920</b>	<b>0.0055</b>	<0.0050	<b>0.0360</b>	<b>0.014</b>	<0.0050		
				1/19/2011		<0.150	<0.0020	<b>0.500</b>	<0.050	<0.0050	<b>0.0081</b>	<0.0050	<0.0050	<b>0.390</b>	<0.0050	<0.0050	<b>0.027</b>	<b>0.0080</b>	<0.0050		
	MW-21 (Duplicate)					<0.150	<0.0020	<b>0.580</b>	<0.050	<0.0050	<b>0.0097</b>	<0.0050	<0.0050	<b>0.550</b>	<0.0050	<0.0050	<b>0.027</b>	<b>0.0087</b>	<0.0050		
	MW-1	AES		4/12/2011		<0.150	<0.0020	<b>0.030</b>	<0.050	<0.0050	<b>0.011</b>	<0.0050	<0.0050	<b>0.900</b>	<0.0050	<0.0050	<0.0050	<b>0.023</b>	<0.0050		
				8/3/2011		<0.150	<0.0020	<b>0.0095</b>	<0.050	<0.0050	<b>0.016</b>	<0.0050	<0.0050	<b>1.500</b>	<0.0050	<0.0050	<0.0050	<b>0.0092</b>	<0.0050		
				1/25/2012		<0.150	<0.0020	<b>0.014</b>	<0.050	<0.0050	<b>0.023</b>	<0.0050	<0.0050	<b>0.880</b>	<0.0050	<0.0050	<0.0050	<b>0.015</b>	<0.0050		
				10/29/2014		<0.150	<0.0020	<b>0.130</b>	<0.050	<0.0050	<b>0.007</b>	<0.0050	<0.0050	<b>0.150</b>	<0.0050	<0.0050	<b>0.0081</b>	<0.0050	<0.0050		
				10/24/2016		<0.100	<0.00200	<b>0.0717</b>	<0.0500	<0.00500	<b>0.00553</b>	<0.00500	<0.00500	<b>0.106</b>	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		

**Table 5**  
**Historical Groundwater Analytical Results**

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)				
<b>Risk Reduction Standards</b>						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005				
MW-2	MW-2	Earth Tech	Test America	9/26/2001	EPA 8260B	NA	<0.0020	2.480	<0.050	<0.0050	0.0375	0.0205	0.0030	8.180	0.0058	0.0316	0.112	0.076	0.0047				
						NA	<0.0020	2.100	<0.050	<0.0050	0.012	0.011	<0.0050	3.100	0.0053	0.010	0.068	0.068	<0.0050				
	D-MW-2 (Duplicate)	aquaFusion	AES	1/9/2006		NA	<0.0020	2.700	<0.050	<0.0050	0.013	0.011	<0.0050	3.900	0.0054	0.011	0.074	0.074	<0.0050				
	MW-2	S&ME				<0.150	<0.0020	0.320	<0.050	<0.0050	0.023	0.0018 (J)	0.0014 (J)	0.460	<0.0050	0.0013 (J)	0.015	0.0022 (J)	0.0011 (J)				
	MW-2					<0.150	<0.0020	0.390	<0.050	<0.0050	0.280	0.0018 (J)	0.0014 (J)	1.900	<0.0050	0.0061	0.034	0.0027	0.0082				
	MW-2					<0.150	<0.0020	0.360	<0.050	<0.0050	0.010	<0.0050	<0.0050	0.240	<0.0050	<0.0050	0.019	0.0054	<0.0050				
	MW-2					<0.150	<0.0020	0.019	0.094	<0.0050	0.013	<0.0050	<0.0050	0.370	<0.0050	<0.0050	<0.0050	0.0070	<0.0050				
	DW-27 (Duplicate)					<0.150	<0.0020	0.010	<0.050	<0.0050	0.061	<0.0050	<0.0050	0.940	<0.0050	0.0057	<0.0050	<0.0050	<0.0050				
	MW-2					<0.150	<0.0020	0.014	<0.050	<0.0050	0.063	<0.0050	<0.0050	1.100	<0.0050	0.0060	<0.0050	<0.0050	<0.0050				
	MW-2					<0.150	<0.0020	<0.0050	<0.050	<0.0050	0.023	<0.0050	<0.0050	0.290	<0.0050	<0.0050	<0.0050	0.0088	<0.0050				
	MW-2	ESC				<0.150	<0.0020	0.100	<0.050	<0.0050	0.006	<0.0050	<0.0050	0.096	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050				
MW-3	MW-3	Earth Tech	Test America	9/26/2001	EPA 8260B	NA	<0.0020	1.170	<0.050	<0.0050	0.0130	0.0038	<0.0020	1.610	0.0022	0.0084	0.0302	0.0131	0.0026				
		aquaFusion	NA	1/9/2006		NA	ABANDONED																
MW-4	MW-4	aquaFusion	AES	4/6/2006	EPA 8260B	NA	<0.0020	1.000	<0.050	<0.0050	0.006	<0.0050	<0.0050	1.600	<0.0050	<0.0050	0.025	<0.0050	<0.0050				
						<0.150	<0.0020	0.110	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.120	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050				
						<0.150	<0.0020	0.370	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.670	<0.0050	<0.0050	0.021	<0.0050	<0.0050				
						<0.150	<0.0020	0.190	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.220	<0.0050	<0.0050	0.0098	<0.0050	<0.0050				
						<0.150	<0.0020	0.170	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.190	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050				
						<0.150	<0.0020	0.110	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.120	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050				
						<0.150	<0.0020	0.190	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.100	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050				
						<0.150	<0.0020	0.170	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.190	<0.0050	<0.0050	0.0070	<0.0050	<0.0050				
						<0.100	<0.00200	0.112	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.136	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500				
	MW-25D (Duplicate)	ESC		10/24/2016		<0.100	<0.00200	0.102	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.120	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500				

**Table 5**  
**Historical Groundwater Analytical Results**  
 Georgia Department of Transportation-District Office  
 2505 Athens Highway  
 Gainesville, Hall County, Georgia  
 HSI Site No. 10759

Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)	
<b>Risk Reduction Standards</b>						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005	
MW-5	MW-5	S&ME	aquaFusion	AES	4/18/2006	EPA 8260B	NA	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
			NA	1/27/2009	NA													DRY		
			AES	1/27/2010	AES		<0.150	<0.0020	<b>0.011</b>	<0.050	<0.0050	<0.0050	<0.0050	<b>0.018</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
			NA	4/12/2011	NA													DRY		
			NA	8/2/2011	NA													DRY		
			NA	1/24/2012	NA													DRY		
			NA	10/28/2014	NA													DRY		
			NA	10/24/2016	NA													DRY		
MW-6	MW-6	S&ME	aquaFusion	AES	4/6/2006	EPA 8260B	NA	<0.0020	<b>0.043</b>	<0.050	<0.0050	<b>0.020</b>	<0.0050	<0.0050	<b>0.065</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
			NA	1/27/2009	NA													DRY		
			AES	1/27/2010	EPA 8260B		<0.150	<0.0020	<b>0.039</b>	<0.050	<0.0050	<b>0.017</b>	<0.0050	<0.0050	<b>0.048</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
				1/20/2011			<0.150	<0.0020	<b>0.038</b>	<0.050	<0.0050	<b>0.0066</b>	<0.0050	<0.0050	<b>0.034</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
				4/12/2011			<0.150	<0.0020	<b>0.051</b>	<0.050	<0.0050	<b>0.020</b>	<0.0050	<0.0050	<b>0.57</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
				8/4/2011			<0.150	<0.0020	<b>0.043</b>	<0.050	<0.0050	<b>0.012</b>	<0.0050	<0.0050	<b>0.039</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
			NA	1/24/2012	NA													DRY		
			AES	10/30/2014	EPA 8260B		<0.150	<0.0020	<b>0.017</b>	<0.050	<0.0050	<b>0.0074</b>	<0.0050	<0.0050	<b>0.013</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
			ESC	10/26/2016			<0.100	<0.00200	<b>0.0110</b>	<0.0500	<0.00500	<b>0.00755</b>	<0.00500	<0.00500	<b>0.00921</b>	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

**Table 5**  
**Historical Groundwater Analytical Results**

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)	
Risk Reduction Standards						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005	
MW-7	MW-7	aquaFusion	AES	4/6/2006	EPA 8260B	NA	<0.0020	0.300	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.360	<0.0050	<0.0050	0.0058	<0.0050	<0.0050	
	D-MW-7 (Duplicate)					NA	<0.0020	0.320	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.390	<0.0050	<0.0050	0.0061	<0.0050	<0.0050	
	MW-7					<0.150	<0.0020	0.280	<0.050	<0.0050	0.0077	<0.0050	<0.0050	0.230	<0.0050	<0.0050	0.0076	<0.0050	<0.0050	
						1/19/2010														
	MW-7					<0.150	<0.0020	0.190	<0.050	<0.0050	0.0079	<0.0050	<0.0050	0.230	<0.0050	<0.0050	0.0078	<0.0050	<0.0050	
	MW-24D (Duplicate)					<0.150	<0.0020	0.160	<0.050	<0.0050	0.0062	<0.0050	<0.0050	0.130	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						4/13/2011														
	MW-7					<0.150	<0.0020	0.160	<0.050	<0.0050	0.0060	<0.0050	<0.0050	0.130	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						8/5/2011														
	MW-7					NA	1/24/2012	NA							NS					
MW-100		S&ME	AES	10/30/2014	EPA 8260B	<0.150	<0.0020	0.046	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.055	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
	MW-100 (Duplicate)					<0.150	<0.0020	0.045	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.054	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
	MW-7					<0.100	<0.00200	0.0359	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.0322	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
						ESC	10/25/2016													
MW-8	MW-8	aquaFusion	AES	4/6/2006	EPA 8260B	NA	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
	MW-8	S&ME	1/19/2010	EPA 8260B	4/14/2011	<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						<0.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
MW-9	MW-9	aquaFusion	AES	4/19/2006	EPA 8260B	NA	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
						NA	1/29/09	NA							DESTROYED					
MW-9R	MW-9R	S&ME	ESC	10/26/16	EPA 8260B	<0.100	<0.00200	0.0267	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.0281	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
						0.0154	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 5**  
**Historical Groundwater Analytical Results**

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)		
<b>Risk Reduction Standards</b>						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005		
MW-10	MW-10	S&ME	aquaFusion	NA	4/19/2006	NA	DRY														
							DRY														
				AES	1/25/2010	EPA 8260B	<0.150	<0.0020	<b>0.0056</b>	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
				NA	4/12/2011	NA	DRY														
							DRY														
							NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
							DRY														
							DRY														
MW-11	MW-11	S&ME	AES	EPA 8260B	1/20/2010		<0.150	<0.0020	<b>0.100</b>	<0.050	<0.0050	<0.0050	<0.0050	<b>0.130</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					1/19/2011		<0.150	<0.0020	<b>0.200</b>	<0.050	<0.0050	<0.0050	<0.0050	<b>0.190</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					4/12/2011		<0.150	<0.0020	<b>0.033</b>	<0.050	<0.0050	<0.0050	<0.0050	<b>0.040</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					8/3/2011		<0.150	<0.0020	<b>0.034</b>	<0.050	<0.0050	<0.0050	<0.0050	<b>0.049</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					1/26/2012		<0.150	<0.0020	<b>0.130</b>	<0.050	<0.0050	<0.0050	<0.0050	<b>0.094</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					10/29/2014		<0.150	<0.0020	<b>0.060</b>	<0.050	<0.0050	<0.0050	<0.0050	<b>0.051</b>	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
					10/24/2016		<0.100	<0.00200	<b>0.0414</b>	<0.0500	<0.00500	<0.00500	<0.00500	<b>0.0403</b>	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-12	MW-12	S&ME	NA		1/20/2010		DRY														
					4/12/2011		DRY														
					8/2/2011		DRY														
					1/24/2012		DRY														
					10/28/2014		DRY														
			ESC	10/24/2016	EPA 8260B	<0.100	<0.00200	<b>0.0223</b>	<0.0500	<0.00500	<b>0.0447</b>	<0.00500	<0.00500	<b>0.106</b>	<0.00500	<0.00500	<0.00500	<0.00500	<b>0.00614</b>	<0.00500	

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2505 Athens Highway  
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Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)
<b>Risk Reduction Standards</b>						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005
MW-13	MW-13	AES	EPA 8260B	1/26/2010		0.610	<0.0020	0.510	<0.050	<0.0050	0.180	<0.0050	<0.0050	1.800	<0.0050	0.011	0.049	0.047	0.015
				1/19/2011		0.910	<0.0020	1.200	<0.050	0.0079	0.260	<0.0050	<0.0050	3.200	<0.0050	0.014	0.062	0.054	0.026
				4/12/2011		<0.150	<0.0020	0.032	<0.050	<0.0050	0.039	<0.0050	0.017	1.100	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
				8/4/2011		0.700	<0.0020	0.480	<0.050	0.0070	0.300	<0.0050	<0.0050	3.400	<0.0050	0.016	0.044	<0.0050	0.016
				DW-28 (Duplicate)		0.640	<0.0020	0.420	<0.050	0.0080	0.310	<0.0050	<0.0050	3.600	<0.0050	0.016	0.044	<0.0050	0.016
	MW-13	S&ME	EPA 8260B	NA	NA	DRY													
				AES	10/27/2014	<0.150	<0.0020	0.610	<0.050	<0.0050	0.220	<0.0050	<0.0050	2.000	<0.0050	0.0068	0.025	0.023	0.012
				ESC	10/24/2016	<0.100	<0.00200	0.326	<0.0500	<0.00500	0.145	<0.00500	<0.00500	0.978	<0.00500	<0.00500	0.0187	0.00614	0.0120
I-2	I-2	S&ME	AES	1/24/2012	EPA 8260B	<.150	<0.0020	0.0070	<0.050	<0.0050	0.011	<0.0050	<0.0050	0.440	<0.0050	<0.0050	<0.0050	0.0063	<0.0050
	DW-67 (Duplicate)					<.150	<0.0020	0.0060	0.065	<0.0050	0.012	<0.0050	<0.0050	0.430	<0.0050	<0.0050	<0.0050	0.0073	<0.0050
I-5	I-5	S&ME	AES	1/24/2012	EPA 8260B	<.150	<0.0020	0.870	<0.050	<0.0050	0.240	0.0082	<0.0050	1.200	<0.0050	0.020	0.056	0.100	0.0086
I-6	I-6	S&ME	AES	1/26/2012	EPA 8260B	<.150	<0.0020	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	0.190	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
I-7	I-7	S&ME	NA	1/26/2012	NA	DRY													
I-9	I-9	S&ME	NA	1/26/2012	NA	DRY													

Notes: The above table presents VOC constituents detected in at least one sample.

Results reported on a dry weight basis.

Analysis of VOC constituents not presented in the above table were reported below the laboratory detection limit.

Results reported in milligram per Liter (mg/L)

DCE = Dichloroethene

DCA = Dichloroethane

TCA = Trichloroethane

TCE = Trichloroethene

PCE = Tetrachloroethene

NA = Not Analyzed/Not Applicable

NS = Not Sampled

results above laboratory reporting limits

results above the Applicable Risk Reduction Standard

**Table 6**  
Current Groundwater Analytical Results vs. Risk Reduction Standards

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)
Risk Reduction Standards						Type 1 - 0.07	Type 1 - 0.002	Type 1 - 0.007	Type 1 - 4.00	Type 1 - 0.005	Type 1 - 4.00	Type 1 - 0.005	Type 1 - 0.1	Type 1 - 0.2	Type 1 - 0.005	Type 1 - 0.005	Type 1 - 0.005	Type 1 - 0.005	
						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005
MW-1D <sup>(6)</sup>	MW-1D	S&ME	ESC	10/25/2016	EPA 8260B	<0.100	<0.00200	0.00600	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
MW-2D <sup>(6)</sup>	MW-2D	S&ME	ESC	10/25/2016	EPA 8260B	<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
MW-3D <sup>(6)</sup>	MW-3D	S&ME	ESC	10/26/2016	EPA 8260B	0.112	<0.00200	0.0375	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
MW-4D	MW-4D	S&ME	ESC	10/24/2016	EPA 8260B	<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.0162	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-10D <sup>(6)</sup>	MW-10D	S&ME	ESC	10/26/2016	EPA 8260B	<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
MW-14D	MW-35D (duplicate)	S&ME	ESC	10/25/2016	EPA 8260B	<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
						<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
						0.00344	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-1	MW-1	S&ME	ESC	10/24/2016	EPA 8260B	<0.100	<0.00200	0.0717	<0.0500	<0.00500	0.00553	<0.00500	<0.00500	0.106	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-2	MW-2	S&ME	ESC	10/25/2016	EPA 8260B	<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.0410	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-3	NA				ABANDONED														
MW-4	MW-4 MW-25D (Duplicate)	S&ME	ESC	10/24/2016	EPA 8260B	<0.100	<0.00200	0.112	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.136	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
						<0.100	<0.00200	0.102	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.120	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-5	MW-5	S&ME	NA	10/24/2016	NA	DRY													
MW-6	MW-6	S&ME	ESC	10/26/2016	EPA 8260B	<0.100	<0.00200	0.0110	<0.0500	<0.00500	0.00755	<0.00500	<0.00500	0.00921	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-7	MW-7	S&ME	ESC	10/25/2016	EPA 8260B	<0.100	<0.00200	0.0359	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.0322	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-8	MW-8	S&ME	ESC	10/26/2016	EPA 8260B	<0.100	<0.00200	<0.00500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-9	NA				DESTROYED														
MW-9R	MW-9R	S&ME	ESC	10/26/16	EPA 8260B	<0.100	<0.00200	0.0267	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.0281	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
						0.0154	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-10	MW-10	S&ME	NA	10/24/2016	NA	DRY													
MW-11	MW-11	S&ME	ESC	10/24/2016	EPA 8260B	<0.100	<0.00200	0.0414	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	0.0403	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

**Table 6**  
Current Groundwater Analytical Results vs. Risk Reduction Standards

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	Vinyl Chloride (75014)	1,1-DCE (75354)	Acetone (67641)	Methylene Chloride (75092)	1,1-DCA (75343)	cis-1,2-DCE (156592)	Chloroform (67663)	1,1,1-TCA (71556)	Carbon Tetrachloride (56235)	1,2-DCA (107062)	TCE (79016)	1,1,2-TCA (79005)	PCE (127184)
Risk Reduction Standards						Type 1 - 0.07	Type 1 - 0.002	Type 1 - 0.007	Type 1 - 4.00	Type 1 - 0.005	Type 1 - 4.00	Type 1 - 0.005	Type 1 - 0.1	Type 1 - 0.2	Type 1 - 0.005	Type 1 - 0.005	Type 1 - 0.005	Type 1 - 0.005	Type 1 - 0.005
						Type 3 - 0.019	Type 4 - 0.00327	Type 4 - 0.524	Type 4 - 45.6	Type 4 - 0.119	Type 3 - 4.00	Type 4 - 1.02	Type 3 - 0.100	Type 4 - 13.60	Type 3 - 0.005	Type 3 - 0.005	Type 4 - 0.0377	Type 4 - 0.0464	Type 3 - 0.005
MW-12	MW-12	S&ME	ESC	10/24/2016	EPA 8260B	<0.100	<0.00200	0.0223	<0.0500	<0.00500	0.0447	<0.00500	<0.00500	0.106	<0.00500	<0.00500	<0.00500	0.00614	<0.00500
MW-13	MW-13	S&ME	ESC	10/24/2016	EPA 8260B	<0.100	<0.00200	0.326	<0.0500	<0.00500	0.145	<0.00500	<0.00500	0.978	<0.00500	<0.00500	0.0187	0.00614	0.0120

Notes: The above table presents VOC constituents detected in at least one sample.

Results reported on a dry weight basis.

Analysis of VOC constituents not presented in the above table were reported below the laboratory detection limit.

Results reported in milligram per Liter (mg/L)

DCE = Dichloroethene

DCA = Dichloroethane

TCA = Trichloroethane

TCE = Trichloroethene

PCE = Tetrachloroethene

NA = Not Analyzed/Not Applicable

NS = Not Sampled

results above the Type 1 Risk Reduction Standard

results above the Type 1 and Type 3 Risk Reduction Standard

## **Appendices**

## **Appendix I – EPD Comments**



## GEORGIA EPD RRP COMMENTS AND AFFILIATED RESPONSES

The following sections address the EPD's comments outlined in the February 18, 2016 "EPD Comments-Voluntary Remediation Program Application" letter. A copy of the letter is included as Exhibit A.

### ❖ Comment #1

*Section 2.2 of the November 2015 VRP Application discusses the accidental destruction of the off-site, side-gradient monitoring well MW-9. The potentiometric contour lines drawn near the release area in Figures 6A and 6B depict a groundwater flow direction towards the destroyed monitoring well MW-9 to the north. Please install a replacement well in the direction of MW-9 in order to fully delineate the groundwater plume. Please note that horizontal delineation is required within 12 months of enrollment in the VIRP.*

*In addition, because concentrations of 1,4-dioxane continue to exceed the Type 3 Risk Reduction Standards (RRS) at MW-3D, the installation of a deeper monitoring well to the east of MW-3D is required for vertical and horizontal delineation prior to submittal of the CSR. Additionally, the laboratory reporting limit for 1,4-dioxane was 150 µg/L during the most recent groundwater sampling event, which exceeds the Type 1 RRS of 70 µg/L. Please use appropriate reporting limits that are below the RRS during the next groundwater sampling event. Furthermore, 1,1-DCE was also reported in exceedance of the Type 1 RRS (7 µg/L) at MW-3D during the most current groundwater sampling event. Please note that vertical delineation is required within 30 months of enrollment in the VIRP.*

### Response

Monitoring well MW-9R was installed on October 6, 2016. Due to current development of the roadway and limited access to install the new well, MW-9R was installed approximately 260 feet to the east-northeast of the former MW-9 location. Monitoring well MW-14D was installed on October 6 through 10, 2016. MW-14D was installed approximately 500 feet to the east-southeast of MW-3D location. Details of the well installations are provided in Section 3.1 of First Semi-Annual Progress Report and locations are shown on Figure 3 of the progress report.

The analysis for 1,4-dioxane was performed using a lower detection limit (0.003 milligrams per liter (mg/L)) which is below the Type 1 RRS standard of 0.070 mg/L.

### ❖ Comment #2

*EPD conducted a site visit on February 9, 2016 and observed a small stream located near the eastern portion of the Subject Property that did not appear to be intermittent as previously described. The stream begins from a culvert, which appears to originate off-site, and daylighting near the northern portion of the Subject Property approximately 100 feet west of the salt storage building. The stream runs northwest to southwest and passes below an on-site road, through a culvert, and daylighting again on the southeastern portion of the Subject Property. A sheen was observed, along with tires, metal debris, and trash, in the stream near the southern boundary of the Subject Property. A second smaller stream was located along the southeastern boundary of the Subject Property flowing from a small pond. A dry ditch was identified north of the pond on*



## EPD Comments and Responses

Georgia DOT - Gainesville District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
S&ME Project No. 4468-14-073A

*the eastern boundary of the Subject Property and appeared to primarily be a storm-water ditch, with the exception of the aforementioned pond and small stream. As described in Section 3.2 of the November 2015 VRP Application, one (1) water sample was collected in 1988 from a shallow borehole adjacent to Pond Fork and was analyzed for 1,1,1-TCA only. Because this sample was collected 28 years ago, analyzed for one (1) specific VOC, and is located directly downgradient from the release area, please collect a minimum of four (4) surface water samples from the facility and analyze the samples for total VOCs. Please collect the samples from the following locations:*

- *The culvert outfall where the stream first daylights on the Subject Property;*
- *The culvert outfall where the stream daylights on the southern portion of the Subject Property;*
- *The stream at the southeastern boundary of the Subject Property; and*
- *The ponded location near the southeastern portion of the site.*

*In addition, please remove identified solid waste in accordance with Section 391-3-4-.04(4)(c) of the Solid Waste Management Rules. If requested EPD can provide photographs for the requested sampling locations and/or be present on-site during the surface water sampling event.*

### **Response**

Surface water samples (SW-1 through SW-3) were collected on October 25, 2016 and analyzed for VOCs. The ponded location was dry at the time of sampling; therefore, a sample was not collected. The location of the surface water samples are shown on Figure 4 of the progress report and details of the surface water sampling and results are described in Section 3.2.

GDOT is in the process of removing the solid waste identified on the subject property.

### **❖ Comment #3**

*EPD has reviewed the Certification of Compliance with RRS presented in the November 2015 VRP Application and concurs that the Subject Property is in compliance with the Type 1 RRS for soil.*

### **Response**

S&ME has noted that EPD concurs with the Subject Property is in compliance with the Type 1 RRS for soil. However, per the December 1 2016 meeting with S&ME and the EPD, the EPD requested that the historical soil data be re-evaluated for the detection of 1,4-dioxane.

Upon reviewing historical data samples taken by others in 2001 and 2006, 1,4-dioxane was not included as a constituent of concern in the analytical data. During previous assessments, S&ME collected soil samples at during monitoring well installation of MW-11, MW-12, MW-13, and MW-4D. Laboratory analytical data indicated that 1,4-dioxane was not detected above laboratory detection limits (ranging from 0.052 mg/kg and 0.067 mg/kg); which are below the Type 1 RRS of 0.07 mg/kg. It should be noted that MW-4D is considered to be within the main source area directly behind the on-site laboratory.

Based on this information, it is S&ME's opinion that the Subject Property is in compliance with Type 1 RRS for soil for 1,4-dioxane and no further investigation is required. Historical soil data is presented in Table 1 within Exhibit B.



## EPD Comments and Responses

Georgia DOT - Gainesville District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
S&ME Project No. 4468-14-073A

### ❖ Comment #4

*Section 4.0 of the November 2015 VRP application proposes one (1) annual groundwater monitoring event and report. EPD does not agree that one groundwater sampling event is sufficient to develop the CSR at this time. A limited groundwater sampling event identifying the sampling of specified wells maybe proposed following the first full round of groundwater sampling. Please also address groundwater sampling Comments #4 and #5 in EPD's May 8, 2015 letter discussing proper groundwater sampling techniques during the next round of groundwater sampling. In the future, please follow SESDPROC-301-R3 sampling procedures.*

*Please include an updated milestone schedule per the Voluntary Investigation and Remediation Plan Application Form and Checklist. A Gantt chart format is preferred for the milestone schedule. Please also include a table of delineation standards in the next report per the Voluntary Investigation and Remediation Plan Application Form and Checklist.*

#### Response

S&ME has recommended an additional limited groundwater monitoring event be conducted. The recommended groundwater sampling event will be limited to include MW-1, MW-2, MW-2D, MW-3D, MW-4, MW-4D, MW-6 through MW-8, MW-9R, MW-13, and MW-14D.

Per phone conversation with Mr. Peter Johnson of EPD prior to the October 2016 sampling event, the pump intake was positioned within the mid-section of the monitoring well screen. If applicable, the well was purged until three consecutive (within 10%) parameter readings (pH, temperature, conductivity, oxidation reduction potential (ORP), and dissolved oxygen (DO)) and turbidity reading of less than 10 NTUs was achieved. If parameter readings were reached but turbidity remained elevated, purging continued to a maximum of five well volumes was removed. Due to slow recharge rates, wells pumped dry were considered purged. If pumped dry, the groundwater inside the well was allowed to recharge before sampling (using pump or teflon bailer) within the same day.

A milestone schedule, in Gantt Chart Format, is included as Appendix VII of the progress report.

Type 1 Risk Reduction Standards are included in Tables 6 - Current Groundwater Analytical Results vs. Risk Reduction Standards of the progress report.

### ❖ Comment #5

*Figure 4, Conceptual Site Model, of the November 2015 VRP Application, is incomplete. Please include two (2) scaled cross-sections in the first semi-annual progress report, one (1) perpendicular and one (1) parallel to the contaminant plume. In addition, please include a stratigraphic cross-section in the direction of the nearest drinking water/supply well to the subject property in the next report, if it is in a different direction than parallel or perpendicular to the plume. Please also conduct an updated drinking water well search and include the findings in the next report.*

**Response**

A Cross Section Map, Cross Section A-A' (parallel to plume) and Cross Section B-B' (perpendicular to plume) are provided as Figures 1, 2, and 3 within Exhibit C.

On November 15, 2016, S&ME performed a web based search of the United States Geologic Survey (USGS) groundwater site inventory of wells. The search criteria was defined as two miles from the subject property. There was one (1) location identified in the USGS database within the applicable search radii for the site, listed as an outfall on North Oconee River Tributary. The location of the outfall is approximately 0.75 miles north of the subject property. The USGS well inventory search results are provided in Exhibit D.

S&ME conducted a one half mile radius field reconnaissance on January 12, 2017, in an attempt to identify nearby drinking water wells. A well pump house was observed at 2616 Gillsville Highway; however, a city water meter was visually located on the property. Residences without water meters were observed along Jack Bryant Circle, located approximately ¼-mile downgradient (east) of the site.

**❖ Comment #6**

*Section 3.3 of the November 2015 VRP Application is labeled Point of Demonstration for Groundwater but the point of demonstration was not discussed in this or any other section of the report. If the Point of Demonstration (POD) well has not been established or considered, please define and/or discuss the POD in the next report.*

**Response**

The POD shallow and deeps wells are considered to be MW-8 and MW-14D, respectively.

**❖ Comment #7**

*Monitoring well MW-3 is listed on Table 3 as having been abandoned in January 2006. One (1) groundwater sampling event was conducted during the September 2001 at MW-3 and reported 1,1-DCE and 1,2-DCA at elevated concentrations, above the applicable RRSs. The location of MW-3 was not included in any of the figures. Although the well has been abandoned, please include the former location for MW-3 on all appropriate figures in subsequent reports.*

**Response**

Monitoring well MW-3 was formerly located in the vicinity of MW-7. The location of MW-3 is presented on Figure 3 of the progress report.

**❖ Comment #8**

*Section 2.3 of the November 2015 VRP Application states the groundwater VOC trend shows a decreasing or stable trend; however, after reviewing the Mann-Kendall data provided, no decreasing trends were observed. In addition, data for the sampling event #2 for MW-1 was incorrectly input into the GSI Mann-Kendall Toolkit module for PCE. 0.023 mg/L was entered into the cell, but according to the laboratory report, this concentration was reported for 1,1,2 trichloroethene not PCE. After entering the correct non-detect value for*

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Georgia DOT - Gainesville District Office

2505 Athens Highway

Gainesville, Hall County, Georgia

S&ME Project No. 4468-14-073A

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*the #2 sampling event, the confidence factor was reduced from 75.8% to 50.0%. Please be sure to input all data accurately and appropriately in all future reports. EPD does agree that, although the confidence factor percentages are low, the data used in the Mann-Kendall analysis indicates a stable trend for the set of well data used.*

**Response**

S&ME verified the input data was accurately entered and reran the Mann-Kendall analysis to include the current groundwater sampling event data. Based on the data, Mann-Kendall predicted VOC trends as mostly stable with the exception of 1,1 DCE concentration (no trend in MW-1 and decreasing in MW-2) and 1,4-dioxane concentration (no trend in MW-3D). The Mann-Kendall calculations are provided in Exhibit E.

## **Exhibits**

## **Exhibit A – EPD Comment Letter**

# **Georgia Department of Natural Resources**

## **Environmental Protection Division-Land Protection Branch**

2 Martin Luther King Jr., Dr., Suite 1054 East, Atlanta, Georgia 30334

(404) 657-8600; Fax (404) 657-0807

Judson H. Turner, Director

February 18, 2016

### **VIA U.S. MAIL and EMAIL**

Georgia Department of Transportation  
c/o Mr. Jim Clute  
State Facilities Manager  
600 West Peachtree Street N.W. 7th Floor  
Atlanta, GA 30308

Re: EPD Comments  
Voluntary Remediation Program Application  
Georgia DOT – Gainesville District Office  
HSI Site Number: 10759  
2505 Athens Highway  
Gainesville, Hall County  
Tax parcel ID #: 15023 000017

Dear Mr. Clute:

The Georgia Environmental Protection Division (EPD) has reviewed the November 12, 2015 Voluntary Investigation and Remediation Plan (VIRP) application that has been submitted by the Georgia Department of Transportation (GDOT) pursuant to the Georgia Voluntary Remediation Program Act (the Act) O.C.G.A. 12-8-100, *et. seq.* EPD has the following comments, which should be addressed in accordance with the Act:

1. Section 2.2 of the November 2015 VRP Application discusses the accidental destruction of the off-site, side-gradient monitoring well MW-9. The potentiometric contour lines drawn near the release area in Figures 6A and 6B depict a groundwater flow direction towards the destroyed monitoring well MW-9 to the north. Please install a replacement well in the direction of MW-9 in order to fully delineate the groundwater plume. Please note that horizontal delineation is required within 12 months of enrollment in the VIRP.

In addition, because concentrations of 1,4-dioxane continue to exceed the Type 3 Risk Reduction Standards (RRS) at MW-3D, the installation of a deeper monitoring well to the east of MW-3D is required for vertical and horizontal delineation prior to submittal of the CSR. Additionally, the laboratory reporting limit for 1,4-dioxane was 150 µg/L during the most recent groundwater sampling event, which exceeds the Type 1 Risk Reduction Standard (RRS) of 70 µg/L. Please use appropriate reporting limits that are below the RRS during the next groundwater sampling event. Furthermore, 1,1-DCE was also reported in exceedence of the Type 1 RRS (7 µg/L) at MW-3D during the most current groundwater sampling event. Please note that vertical delineation is required within 30 months of enrollment in the VIRP.

2. EPD conducted a site visit on February 9, 2016 and observed a small stream located near the eastern portion of the Subject Property that did not appear to be intermittent as previously described. The stream begins from a culvert, which appears to originate off-site, and daylighting near the northern portion of the Subject Property approximately 100 feet west of the salt storage building. The stream runs northwest to southeast and passes below an on-site road, through a culvert, and daylighting again on the southeastern portion of the Subject Property. A sheen was observed, along with tires, metal debris, and trash, in the stream near the southern boundary of the Subject Property. A second smaller stream was located along the southeastern boundary of the

Subject Property flowing from a small pond. A dry ditch was identified north of the pond on the eastern boundary of the Subject Property and appeared to primarily be a storm-water ditch, with the exception of the aforementioned pond and small stream. As described in Section 3.2 of the November 2015 VRP Application, one (1) water sample was collected in 1988 from a shallow borehole adjacent to Pond Fork and was analyzed for 1,1,1-TCA only. Because this sample was collected 28 years ago, analyzed for one (1) specific VOC, and is located directly downgradient from the release area, please collect a minimum of four (4) surface water samples from the facility and analyze the samples for total VOCs. Please collect the samples from the following locations:

- The culvert outfall where the stream first daylights on the Subject Property;
- the culvert outfall where the stream daylights on the southern portion of the Subject Property;
- the stream at the southeastern boundary of the Subject Property; and
- the ponded location near the southeastern portion of the site.

In addition, please remove identified solid waste in accordance with Section 391-3-4-.04(4)(c) of the Solid Waste Management Rules. If requested, EPD can provide photographs for the requested sampling locations and/or be present on-site during the surface water sampling event.

3. EPD has reviewed the Certification of Compliance with RRS presented in the November 2015 VRP Application and concurs that the Subject Property is in compliance with the Type 1 RRS for soil.
4. Section 4.0 of the November 2015 VRP Application proposes one (1) annual groundwater monitoring event and report. EPD does not agree that one groundwater sampling event is sufficient to develop the CSR at this time. A limited groundwater sampling event identifying the sampling of specified wells may be proposed following the first full round of groundwater sampling. Please also address groundwater sampling Comments #4 and #5 in EPD's May 8, 2015 letter discussing proper groundwater sampling techniques during the next round of groundwater sampling. In the future, please follow SESDPROC-301-R3 sampling procedures.

Please include an updated milestone schedule per the Voluntary Investigation and Remediation Plan Application Form and Checklist. A Gantt chart format is preferred for the milestone schedule. Please also include a table of delineation standards in the next report per the Voluntary Investigation and Remediation Plan Application Form and Checklist.

5. Figure 4, *Conceptual Site Model*, of the November 2015 VRP Application, is incomplete. Please include two (2) scaled cross-sections in the first semi-annual progress report, one (1) perpendicular and one (1) parallel to the contaminant plume. In addition, please include a stratigraphic cross-section in the direction of the nearest drinking water/supply well to the subject property in the next report, if it is in a different direction than parallel or perpendicular to the plume. Please also conduct an updated drinking water well search and include the findings in the next report.
6. Section 3.3 of the November 2015 VRP Application is labeled *Point of Demonstration for Groundwater*" but the point of demonstration was not discussed in this or any other section of the report. If the Point of Demonstration (POD) well has not been established or considered, please define and/or discuss the POD in the next report.
7. Monitoring well MW-3 is listed on Table 3 as having been abandoned in January 2006. One (1) groundwater sampling event was conducted during September 2001 at MW-3 and reported 1,1-DCE and 1,2-DCA at elevated concentrations, above the applicable RRSs. The location of MW-3

Voluntary Remediation Program Application

GDOT Gainesville (HSI #10759)

February 18, 2016

Page 3 of 3

was not included in any of the figures. Although the well has been abandoned, please include the former location for MW-3 on all appropriate figures in subsequent reports.

8. Section 2.3 of the November 2015 VRP Application states that the groundwater VOC trend shows a decreasing or stable trend; however, after reviewing the Mann-Kendall data provided, no decreasing trends were observed. In addition, data for the sampling event #2 for MW-1 was incorrectly input into the GSI Mann-Kendall Toolkit module for PCE. 0.023 mg/L was entered into the cell, but according to the laboratory report, this concentration was reported for 1,1,2 trichlorethane not PCE. After entering the correct non-detect value for the #2 sampling event, the confidence factor was reduced from 75.8% to 50.0%. Please be sure to input all data accurately and appropriately in all future reports. EPD does agree that, although the confidence factor percentages are low, the data used in the Mann-Kendall analysis indicates a stable trend for the set of well data used.

GDOT must address these comments to EPD's satisfaction in order to demonstrate compliance with the provisions, purposes, standards, and policies of the Act. EPD may, at its sole discretion, review and comment on future documents submitted by GDOT. However, failure of EPD to respond to a submittal within any timeframe does not relieve GDOT from complying with the provisions, purposes, standards, and policies of the Act.

Should you have any question or concerns regarding this site, please contact Mr. Peter E. Johnson, P.G. of the Response and Remediation Program at (404) 657-0490.

Sincerely,



Jason Metzger  
Program Manager  
Response & Remediation Program

cc: Reginald Murph, GDOT (via email)  
William J. Wagner and Peter Fleury, S&ME (via email)

File: 256-0079, VRP

## **Exhibit B – Soil Table**

**Table 1**  
**Historical Soil Analytical Results**

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sample Depth	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	1,1-Dichloroethene (75354)	Acetone (67641)	1,1-Dichloroethane (75343)	1,1,1-Trichloroethane (71556)
<b>Type 1 Risk Reduction Standard</b>							<b>0.070</b>	<b>0.70</b>	<b>400</b>	<b>400</b>	<b>20.00</b>
G4	G4A	0.5-1'	GDOT	GDOT	2/5/1988	EPA 8260A	NA	NA	NA	NA	<b>0.0463</b>
	G4B	1-1.5'					NA	NA	NA	NA	<b>0.0786</b>
G5	G5	0.5-1'					NA	NA	NA	NA	<b>0.00833</b>
G6	G6	0-0.5'					NA	NA	NA	NA	<b>49.2</b>
GP1	GP1	12-14'	Earth Tech	Test America	7/26/2001	EPA 8260B	NA	<0.0016	<0.397	<0.0016	<b>0.0024</b>
		18-20'					NA	<b>0.0135</b>	<0.0368	<0.0015	<b>0.0853</b>
		24-26'					NA	<0.0016	<0.0397	<0.0016	<0.0016
GP2	GP2	4-6'	Earth Tech	Test America	7/26/2001	EPA 8260B	NA	<0.0014	<0.0338	<0.0014	<0.0014
		6-8'					NA	<0.0015	<0.0368	<0.0015	<b>0.0044</b>
		13-15'					NA	<0.0015	<b>0.0485</b>	<0.0015	<0.0015
GP3	GP3	4-6'	Earth Tech	Test America	7/26/2001	EPA 8260B	NA	<b>0.0032</b>	<b>0.0865</b>	<0.0016	<b>0.0889</b>
		6-8'					NA	<b>0.0049</b>	<b>0.0469</b>	<0.0014	<b>0.1035</b>
		18-20'					NA	<0.0014	<b>0.0528</b>	<0.0014	<b>0.0028</b>
GP4	GP4	8-10'	Earth Tech	Test America	7/26/2001	EPA 8260B	NA	<b>0.0076</b>	<0.0352	<b>0.0242</b>	<b>0.0986</b>
		12-14'					NA	<0.0014	<0.0352	<b>0.0075</b>	<b>0.0296</b>
GP5	GP5	2-4'	Earth Tech	Test America	7/26/2001	EPA 8260B	NA	<0.0013	<b>0.0940</b>	<0.0013	<b>0.0104</b>
		15-17'					NA	<0.0018	<0.0446	<0.0018	<0.0018
GP6	GP6	12-14'	Earth Tech	Test America	7/26/2001	EPA 8260B	NA	<0.0016	<b>0.0448</b>	<0.0016	<0.0016
		18-20'					NA	<0.0016	<b>0.0431</b>	<0.0016	<0.0016
SB-1	SB1-2022	20-22'	aquaFusion	AES	4/18/2006	EPA 8260B	NA	<0.0028	<0.057	<0.0028	<0.0028
	SB1-3537	35-37'					NA	<0.0029	<0.057	<0.0029	<0.0029
SB-2	SB2-1012	10-12'	aquaFusion	AES	4/19/2006	EPA 8260B	NA	<0.0035	<0.070	<0.0035	<b>0.071</b>
	SB2-2022	20-22'					NA	<0.0033	<0.067	<0.0033	<0.0033
	SB2-3840	38-40'					NA	<0.0033	<b>0.077</b>	<0.0033	<0.0033
SB-3	SB3-2022	20-22'	aquaFusion	AES	4/18/2006	EPA 8260B	NA	<0.0029	<b>0.073</b>	<0.0029	<0.0029
	SB3-3840	38-40'			4/6/2006		NA	<b>0.0055</b>	<0.056	<b>0.0073</b>	<b>0.300</b>
SB-5	SB5-1012	10-12'	aquaFusion	AES	4/18/2006	EPA 8260B	NA	<b>0.0032</b>	<0.060	<b>0.0044</b>	<b>0.057</b>
	SB5-2022	20-22'					NA	<b>0.0040</b>	<b>0.073</b>	<b>0.0056</b>	<b>0.068</b>
	SB5-4042	40-42'					NA	<0.0033	<0.066	<0.0033	<0.0033

**Table 1**  
**Historical Soil Analytical Results**

Georgia Department of Transportation-District Office  
2505 Athens Highway  
Gainesville, Hall County, Georgia  
HSI Site No. 10759

Sample Location	Sample ID	Sample Depth	Sampled By	Laboratory	Sample Date	Analytical Method	1,4-Dioxane (123911)	1,1-Dichloroethene (75354)	Acetone (67641)	1,1-Dichloroethane (75343)	1,1,1-Trichloroethane (71556)
			<b>Type 1 Risk Reduction Standard</b>				<b>0.070</b>	<b>0.70</b>	<b>400</b>	<b>400</b>	<b>20.00</b>
SB-6	SB6-1012	10-12'	aquaFusion	AES	4/18/2006	EPA 8260B	NA	<0.0030	<0.060	<0.0030	<b>0.013</b>
	SB6-2022	20-22'					NA	<0.0033	<0.066	<0.0033	<0.0033
	SB6-3840	38-40'					NA	<0.0055	<0.110	<0.0055	<0.0055
SB-7	SB7-1012	10-12'	aquaFusion	AES	4/18/2006	EPA 8260B	NA	<0.0024	<0.048	<0.0024	<b>0.011</b>
	SB7-1820	18-20'					NA	<0.0028	<0.056	<0.0028	<b>0.0057</b>
	SB7-3638	36-38'					NA	<0.0046	<0.093	<0.0046	<0.0046
SB-8	SB8-1618	16-18'	aquaFusion	AES	4/18/2006	EPA 8260B	NA	<0.0030	<0.060	<0.0030	<0.0030
	SB8-3438	34-38'					NA	<0.0031	<0.062	<0.0031	<0.0031
SB-9	SB9-1618	16-18'	aquaFusion	AES	4/18/2006	EPA 8260B	NA	<0.0034	<0.068	<0.0034	<0.0034
	SB9-3436	34-36'					NA	<0.0028	<0.057	<0.0028	<0.0028
MW-4	MW4-3941	39-41'	aquaFusion	AES	4/3/2006	EPA 8260B	NA	<0.0030	<0.060	<0.0030	<0.0030
MW-11	MW11 @ 0'-2'	0' - 2'	S&ME, Inc.	AES	11/5/2009	EPA 8260B	<0.067	<0.0043	<0.0049	<0.0036	<0.0063
	MW12 @ 28 1/2-30'	28.5' - 30'					<0.056	<b>0.0041</b>	<0.0041	<0.0031	<b>0.025</b>
MW-12	MW12 @ 0'-2'	0' - 2'	S&ME, Inc.	AES	11/5/2009	EPA 8260B	<0.055	<0.0035	<0.0040	<0.0030	<0.0052
	MW12 @ 8'12-10'	8.5' - 10'					<0.052	<0.0033	<0.0038	<0.0029	<0.0049
MW-13	MW13 @ 0'-2'	0' - 2'	S&ME, Inc.	AES	11/5/2009	EPA 8260B	<0.059	<0.0038	<0.0043	<0.0032	<0.0056
	MW13 @ 33'12-35'	33.5' - 35'					<0.054	<0.0034	<0.0039	<0.0029	<b>0.0081</b>
MW-4D	MW 4D @ 0'-2'	0' - 2'	S&ME, Inc.	AES	11/9/2009	EPA 8260B	<0.061	<b>0.0044</b>	<0.0044	<0.0033	<b>0.15</b>

Notes: The above table presents VOC constituents detected in at least one sample.

Results reported on a dry weight basis.

Analysis of VOC constituents not presented in the above table were reported below the laboratory detection limit.

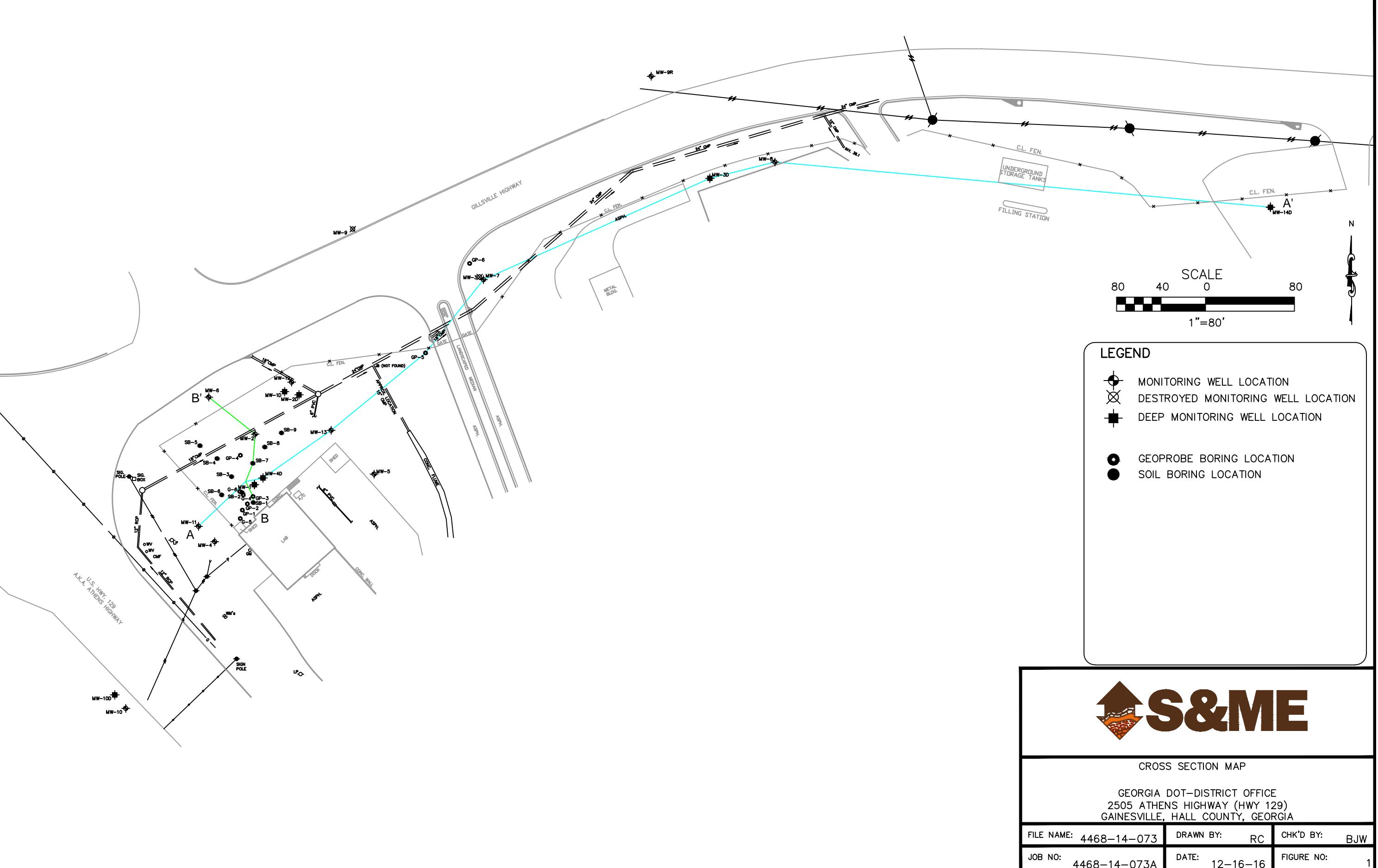
Reported in milligram per kilogram (mg/kg)

NA = Not Analyzed

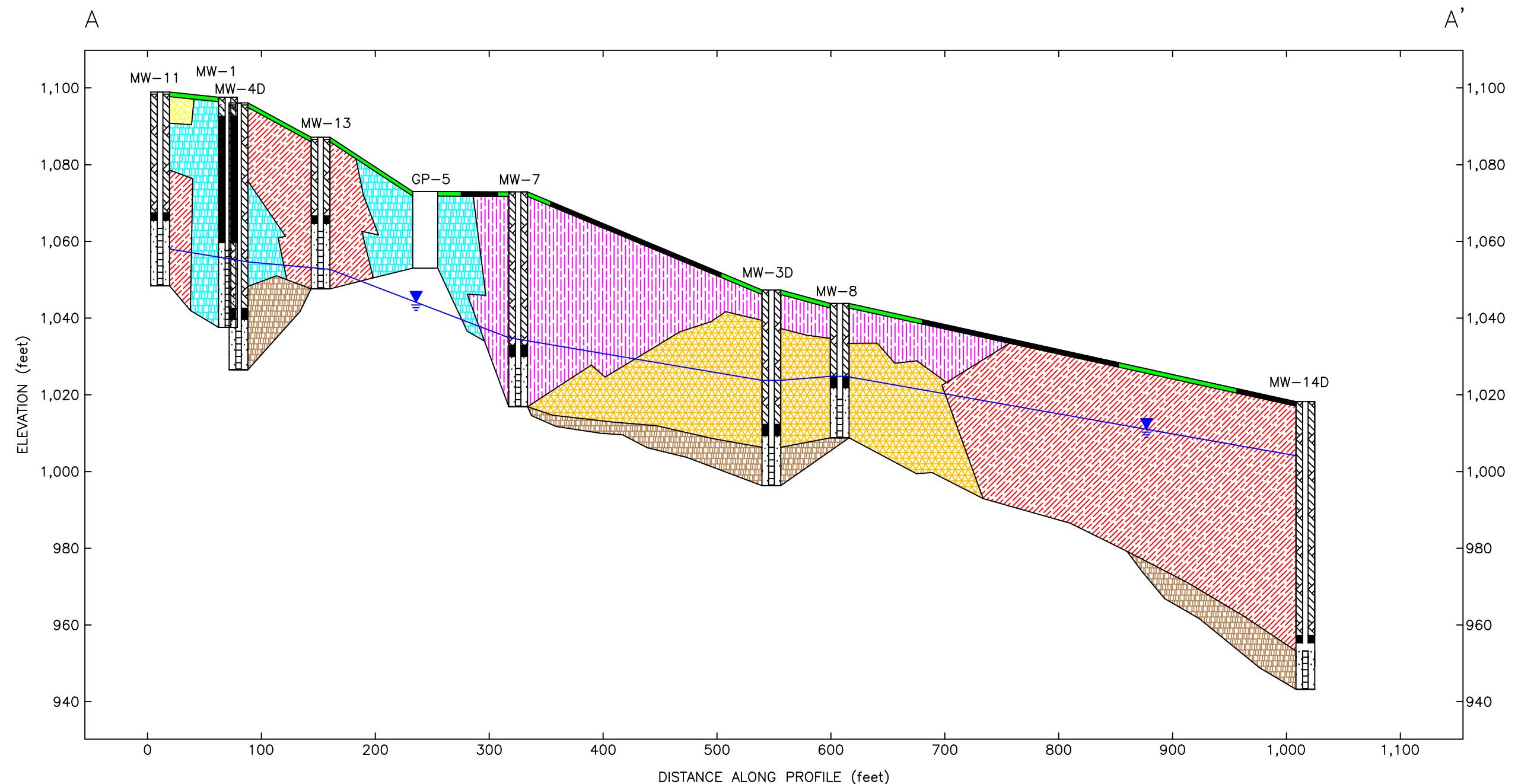
results above laboratory reporting limits

results above the Type 1 Risk Reduction Standard

## **Exhibit C – Figures**



N



## LITHOLOGY GRAPHICS

	CLAYEY SAND		SILTY CLAY
	SILT		ROCK
	SILTY SAND		ASPHALT
	SANDY SILT		GRASS
			GROUNDWATER TABLE

HORIZONTAL SCALE  
100 0 100  
1"=100'  
VERTICAL EXAGGERATION = 3.5x



## CROSS-SECTION A-A'

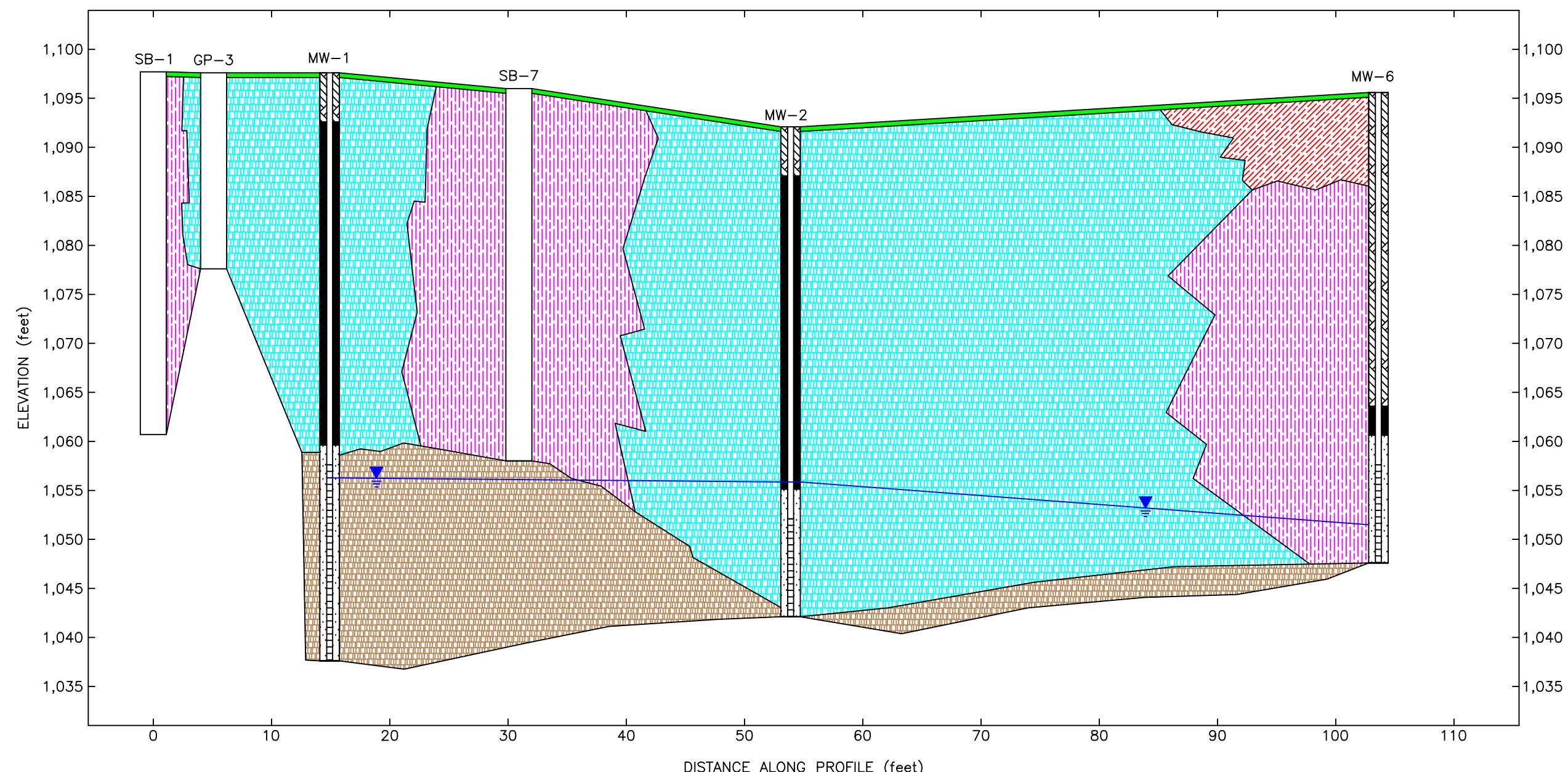
GEORGIA DOT-DISTRICT OFFICE  
2505 ATHENS HIGHWAY (HWY 129)  
GAINESVILLE, HALL COUNTY, GEORGIA

FILE NAME:	A-A1	DRAWN BY:	RC	CHK'D BY:	BJW
JOB NO:	4468-14-073A	DATE:	12/16/16	FIGURE NO:	2

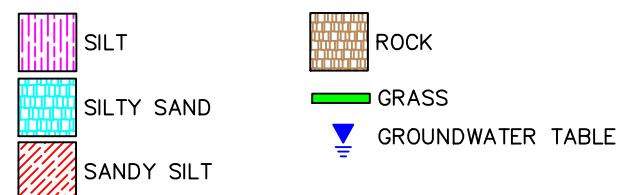
N

B

B'



## LITHOLOGY GRAPHICS



HORIZONTAL SCALE  
10 0 10

1"=10'  
VERTICAL EXAGGERATION = 1x



## CROSS-SECTION B-B'

GEORGIA DOT-DISTRICT OFFICE  
2505 ATHENS HIGHWAY (HWY 129)  
GAINESVILLE, HALL COUNTY, GEORGIA

FILE NAME:	B-B1	DRAWN BY:	RC	CHK'D BY:	BJW
JOB NO:	4468-14-073A	DATE:	12/16/16	FIGURE NO:	3

## **Exhibit D – USGS Well Inventory Search**



[USGS Home](#)  
[Contact USGS](#)  
[Search USGS](#)

## National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:	Geographic Area:
Site Information	United States

Click to hideNews Bulletins

- [Please see news on new formats](#)
- [Full News](#)

Site Inventory for the Nation

---

### Site Selection Results -- 1 sites found

**lat\_long\_bounding\_box**

Position	Latitude	Longitude
Corner 1	34°17'24"	83°47'59"
Corner 2	34°13'48"	83°43'48"

Coordinates are entered as Degrees-Minutes-Seconds (DMS). DMS values are converted to Decimal degrees using NAD83 as the datum. Make your bounding box bigger if you are using NAD27 Datum for your DMS values

[Save file of selected sites](#) to local disk for future upload

**Data for individual sites can be obtained by selecting the site number below**

<b>Agency</b>	<b>Site Number</b>	<b>Site Name</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>
USGS	<a href="#">341612083463101</a>	Outfall on N OCONEE RV TRIB BLW GAINESVILLE, GA

---

[Questions about sites/data?](#)[Feedback on this web site](#)[Automated retrievals](#)[Help](#)[Data Tips](#)[Explanation of terms](#)[Subscribe for system changes](#)[News](#)[Accessibility](#)[Plug-Ins](#)[FOIA](#)[Privacy](#)[Policies and Notices](#)[U.S. Department of the Interior | U.S. Geological Survey](#)**Title: Site Inventory -- 1 sites found****URL: <http://waterdata.usgs.gov/nwis/inventory?>**Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2016-11-15 15:52:52 EST

0.23 0.22 vaww01

## **Exhibit E – Mann-Kendall Calculations**

# GSI MANN-KENDALL TOOLKIT

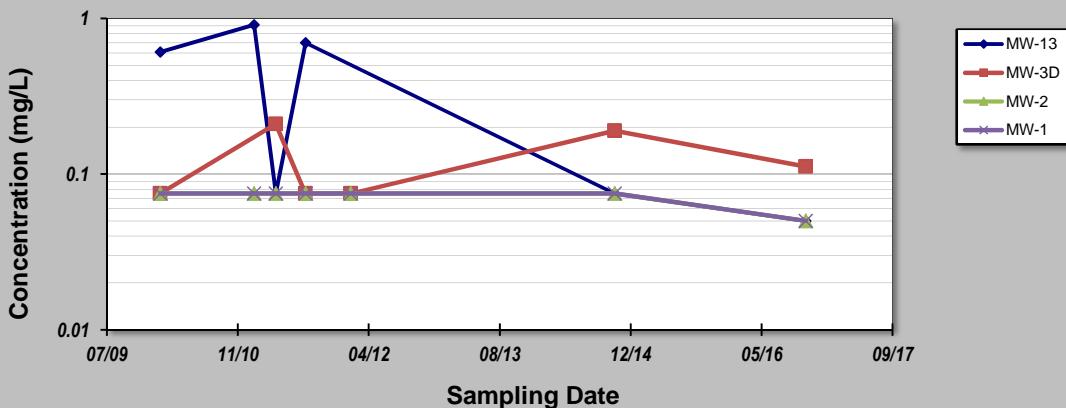
## for Constituent Trend Analysis

Evaluation Date: **17-Nov-16**  
 Facility Name: **Georgia DOT Gainesville GA**  
 Conducted By: **William Wagner**

Job ID: **4468-14-073A**  
 Constituent: **1,4-Dioxane**  
 Concentration Units: **mg/L**

Sampling Point ID: **MW-13 MW-3D MW-2 MW-1**

Sampling Event	Sampling Date	1,4-DIOXANE CONCENTRATION (mg/L)			
		MW-13	MW-3D	MW-2	MW-1
1	26-Jan-10	0.61	0.075	0.075	0.075
2	19-Jan-11	0.91		0.075	0.075
3	12-Apr-11	0.075	0.21	0.075	0.075
4	4-Aug-11	0.7	0.075	0.075	0.075
5	24-Jan-12		0.075	0.075	0.075
6	27-Oct-14	0.075	0.19	0.075	0.075
7	26-Oct-16	0.05	0.112	0.05	0.05
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Coefficient of Variation:	0.95	0.50	0.13	0.13	
Mann-Kendall Statistic (S):	-8	2	-6	-6	
Confidence Factor:	89.8%	57.0%	76.4%	76.4%	
Concentration Trend:	Stable	No Trend	Stable	Stable	



**Notes:**

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ( $S>0$ ) or decreasing ( $S<0$ ):  $>95\% =$  Increasing or Decreasing;  
 $\geq 90\% =$  Probably Increasing or Probably Decreasing;  $< 90\%$  and  $S>0 =$  No Trend;  $< 90\%$ ,  $S\leq 0$ , and  $COV \geq 1 =$  No Trend;  $< 90\%$  and  $COV < 1 =$  Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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# GSI MANN-KENDALL TOOLKIT

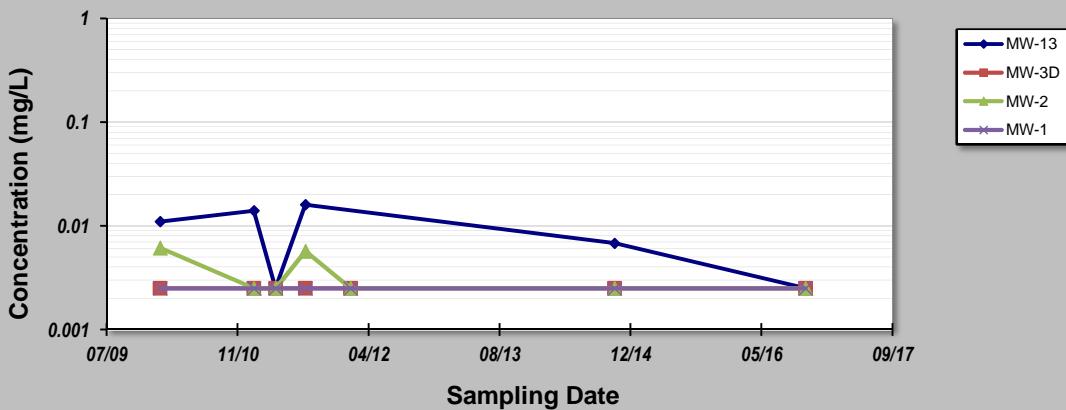
## for Constituent Trend Analysis

Evaluation Date: **17-Nov-16**  
 Facility Name: **Georgia DOT Gainesville GA**  
 Conducted By: **William Wagner**

Job ID: **4468-14-073A**  
 Constituent: **1,2 DCA**  
 Concentration Units: **mg/L**

Sampling Point ID: **MW-13 MW-3D MW-2 MW-1**

Sampling Event	Sampling Date	1,2 DCA CONCENTRATION (mg/L)			
1	26-Jan-10	0.011	0.0025	0.0061	0.0025
2	19-Jan-11	0.014	0.0025	0.0025	0.0025
3	12-Apr-11	0.0025	0.0025	0.0025	0.0025
4	4-Aug-11	0.016	0.0025	0.0057	0.0025
5	24-Jan-12		0.0025	0.0025	0.0025
6	27-Oct-14	0.0068	0.0025	0.0025	0.0025
7	26-Oct-16	0.0025	0.0025	0.0025	0.0025
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Coefficient of Variation:	0.66	0.00	0.48	0.00	
Mann-Kendall Statistic (S):	-4	0	-7	0	
Confidence Factor:	70.3%	37.9%	80.9%	37.9%	
Concentration Trend:	Stable	Stable	Stable	Stable	



**Notes:**

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ( $S>0$ ) or decreasing ( $S<0$ ):  $>95\% =$  Increasing or Decreasing;  
 $\geq 90\% =$  Probably Increasing or Probably Decreasing;  $< 90\%$  and  $S>0 =$  No Trend;  $< 90\%$ ,  $S\leq 0$ , and  $COV \geq 1 =$  No Trend;  $< 90\%$  and  $COV < 1 =$  Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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# GSI MANN-KENDALL TOOLKIT

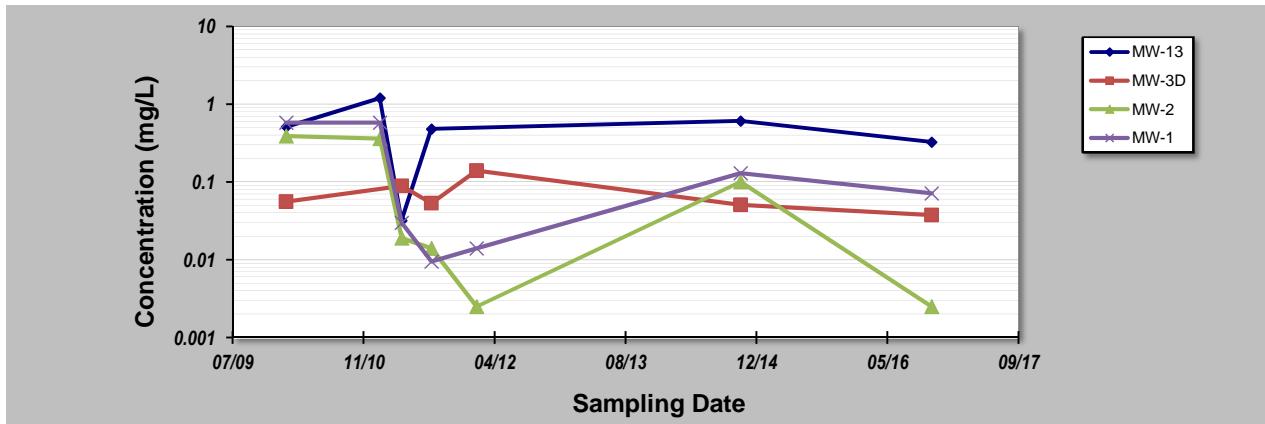
## for Constituent Trend Analysis

Evaluation Date: **17-Nov-16**  
 Facility Name: **Georgia DOT Gainesville GA**  
 Conducted By: **William Wagner**

Job ID: **4468-14-073A**  
 Constituent: **1,1 DCE**  
 Concentration Units: **mg/L**

Sampling Point ID: **MW-13 MW-3D MW-2 MW-1**

Sampling Event	Sampling Date	1,1 DCE CONCENTRATION (mg/L)			
1	26-Jan-10	0.51	0.056	0.39	0.58
2	19-Jan-11	1.2		0.36	0.58
3	12-Apr-11	0.032	0.089	0.019	0.03
4	4-Aug-11	0.48	0.053	0.014	0.0095
5	24-Jan-12		0.14	0.0025	0.014
6	27-Oct-14	0.61	0.051	0.1	0.13
7	26-Oct-16	0.326	0.0375	0.0025	0.0717
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Coefficient of Variation:	0.73	0.53	1.36	1.29	
Mann-Kendall Statistic (S):	-3	-7	-14	-6	
Confidence Factor:	64.0%	86.4%	97.5%	76.4%	
Concentration Trend:	Stable	Stable	Decreasing	No Trend	



**Notes:**

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ( $S>0$ ) or decreasing ( $S<0$ ):  $>95\% =$  Increasing or Decreasing;  
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- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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# GSI MANN-KENDALL TOOLKIT

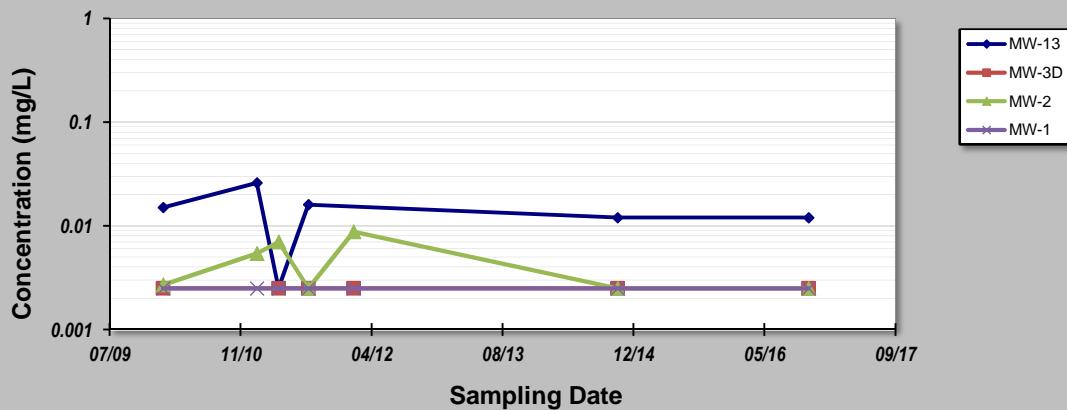
## for Constituent Trend Analysis

Evaluation Date: **17-Nov-16**  
 Facility Name: **Georgia DOT Gainesville GA**  
 Conducted By: **William Wagner**

Job ID: **4468-14-073A**  
 Constituent: **PCE**  
 Concentration Units: **mg/L**

Sampling Point ID: **MW-13 MW-3D MW-2 MW-1**

Sampling Event	Sampling Date	PCE CONCENTRATION (mg/L)			
1	26-Jan-10	0.015	0.0025	0.0027	0.0025
2	19-Jan-11	0.026		0.0054	0.0025
3	12-Apr-11	0.0025	0.0025	0.007	0.0025
4	4-Aug-11	0.016	0.0025	0.0025	0.0025
5	24-Jan-12		0.0025	0.0088	0.0025
6	27-Oct-14	0.012	0.0025	0.0025	0.0025
7	26-Oct-16	0.012	0.0025	0.0025	0.0025
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Coefficient of Variation:	0.55	0.00	0.58	0.00	
Mann-Kendall Statistic (S):	-4	0	-4	0	
Confidence Factor:	70.3%	39.3%	66.7%	37.9%	
Concentration Trend:	Stable	Stable	Stable	Stable	



**Notes:**

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ( $S>0$ ) or decreasing ( $S<0$ ):  $>95\% =$  Increasing or Decreasing;  
 $\geq 90\% =$  Probably Increasing or Probably Decreasing;  $< 90\%$  and  $S>0 =$  No Trend;  $< 90\%$ ,  $S\leq 0$ , and  $COV \geq 1 =$  No Trend;  $< 90\%$  and  $COV < 1 =$  Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

**DISCLAIMER:** The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI Environmental Inc., [www.gsi-net.com](http://www.gsi-net.com)

## **Appendix II – Well Construction Diagrams**

# COMPLETION REPORT OF WELL No. MW-9R

PROJECT: **Gainesville - Hall Co. DOT**  
 PROJECT NO: **1684-07-808B**  
 PROJECT LOCATION: **Gainesville, GA**

WATER LEVEL:

DRILLING CONTRACTOR: **GeoLab**

LATITUDE:

DRILLING METHOD: **4 1/4" H.S.A.**

LONGITUDE:

DATE DRILLED: **10/6/16**

TOP OF CASING ELEVATION:

DATUM:

LOGGED BY: **BJW**

STRATA			WELL DETAILS	DEPTH (feet)	LEGEND	ELEVATION (feet)	WELL CONSTRUCTION DETAILS																																				
DESCRIPTION	SYMBOL	DEPTH (feet)																																									
				0.00	GS	1054.26	PROTECTIVE CASING Diameter: <b>8"</b> Type: <b>Flush Mount Well Vault</b> Interval:																																				
		0		0.21	TOC	1054.05	RISER CASING Diameter: <b>2"</b> Type: <b>Solid Sch. 40 PVC</b> Interval: <b>0' - 28'</b>																																				
		5					GROUT Type: <b>Portland Cement</b> Interval: <b>0' - 24'</b>																																				
		10					SEAL Type: <b>Benonite Chips</b> Interval: <b>24' - 26'</b>																																				
		15					FILTERPACK Type: <b>Filter Sand</b> Interval: <b>26' - 28'</b>																																				
		20		24.00	CG	1030.26																																					
		25		26.00	FP	1028.26																																					
		30		28.00	TSC	1026.26																																					
		35		38.00	BSC TD	1016.26	SCREEN Diameter: <b>2"</b> Type: <b>0.01" Slotted Sch. 40 PVC</b> Interval: <b>28' - 38'</b>																																				
							LEGEND																																				
							<table> <tr> <td></td><td>FILTER PACK</td><td>TOC</td><td>TOP OF CASING</td></tr> <tr> <td></td><td>BENTONITE</td><td>GS</td><td>GROUND SURFACE</td></tr> <tr> <td></td><td>CEMENT GROUT</td><td>BS</td><td>BENTONITE SEAL</td></tr> <tr> <td></td><td>CUTTINGS / BACKFILL</td><td>FP</td><td>FILTER PACK</td></tr> <tr> <td></td><td>STATIC WATER LEVEL</td><td>TSC</td><td>TOP OF SCREEN</td></tr> <tr> <td></td><td></td><td>BSC</td><td>BOTTOM OF SCREEN</td></tr> <tr> <td></td><td></td><td>TD</td><td>TOTAL DEPTH</td></tr> <tr> <td></td><td></td><td>CG</td><td>CEMENT GROUT</td></tr> <tr> <td></td><td></td><td>H.S.A</td><td>HOLLOW STEM AUGER</td></tr> </table>		FILTER PACK	TOC	TOP OF CASING		BENTONITE	GS	GROUND SURFACE		CEMENT GROUT	BS	BENTONITE SEAL		CUTTINGS / BACKFILL	FP	FILTER PACK		STATIC WATER LEVEL	TSC	TOP OF SCREEN			BSC	BOTTOM OF SCREEN			TD	TOTAL DEPTH			CG	CEMENT GROUT			H.S.A	HOLLOW STEM AUGER
	FILTER PACK	TOC	TOP OF CASING																																								
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		TD	TOTAL DEPTH																																								
		CG	CEMENT GROUT																																								
		H.S.A	HOLLOW STEM AUGER																																								

# COMPLETION REPORT OF WELL No. MW-14D

PROJECT: **Gainesville - Hall Co. DOT**  
 PROJECT NO: **1684-07-808B**  
 PROJECT LOCATION: **Gainesville, GA**

WATER LEVEL:

DRILLING CONTRACTOR: **GeoLab**  
 DRILLING METHOD: **Air Rotary**  
 DATE DRILLED: **10/6/16**

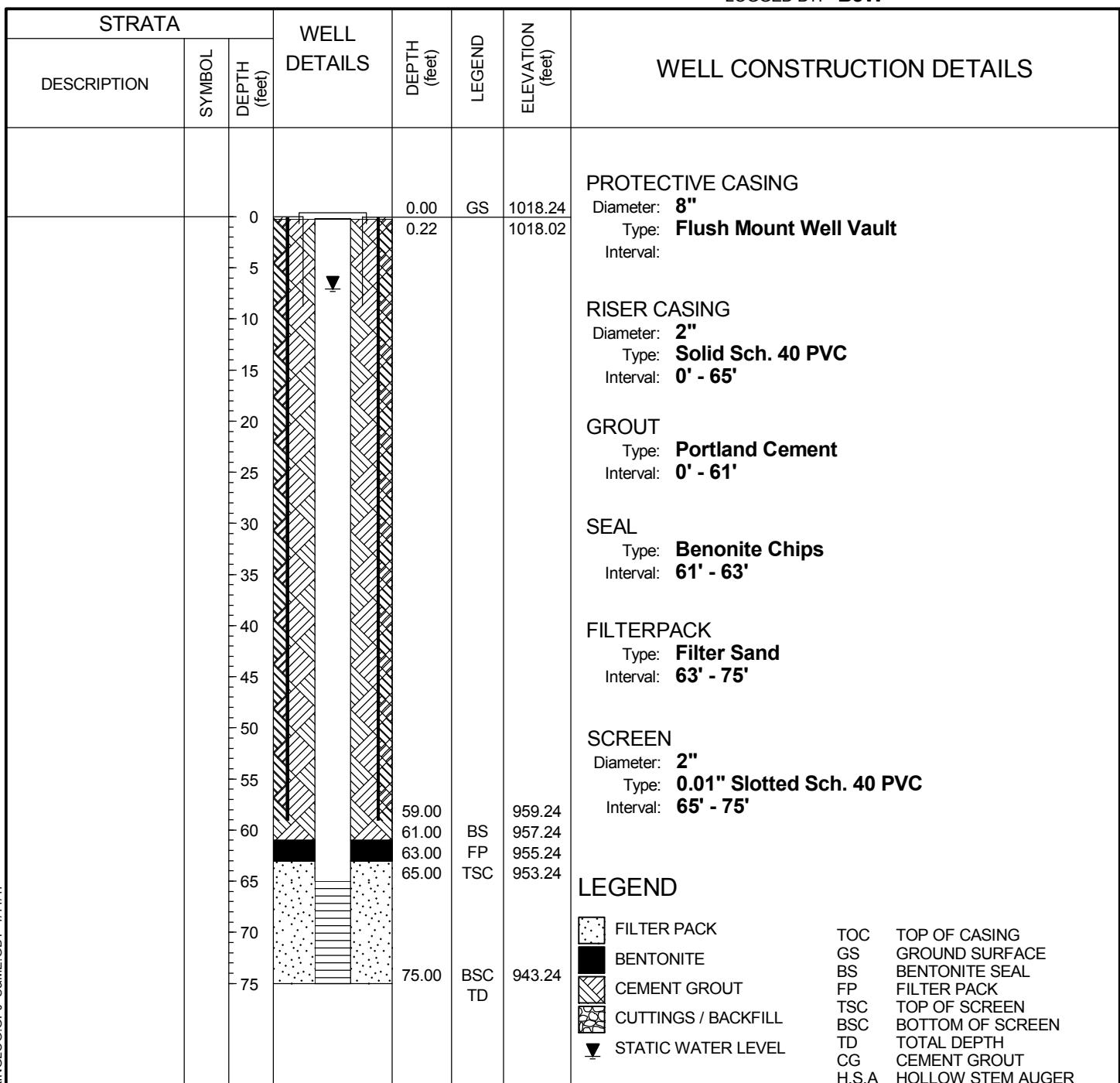
LATITUDE:

LONGITUDE:

TOP OF CASING ELEVATION:

DATUM:

LOGGED BY: **BJW**



### **Appendix III – Manifests and Certificate of Treatments**

# Aqua-Terra

Recycling and Treatment

710 Moore Street • P.O. Box 98  
 Oxford, Georgia 30054  
**Phone: (678) 625-4025**  
**Fax: (678) 625-4944**

## NON-HAZARDOUS WASTE MANIFEST

6132

### Section I

### GENERATOR (Generator completes all of Section 1)

- a. Generator Name: Gandy Recycling & Transfer, Inc.  
 b. Address: 13 Keenly Dr  
Forsyth, GA
- c. Phone No.: (404) 682-4735  
 If owner generating facility differs from the generator, provide:  
 d. Owner's Name: John J. Morris  
 e. Description of Waste: Asbestos

- g. Generating Location: Buckhead District Office  
 h. Address: 750 Peachtree St.  
Buckhead, GA
- i. Phone No.: \_\_\_\_\_  
 j. Owner's Phone No.: \_\_\_\_\_

Quantity	Gallons	Type	TYPE
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DM - METAL DRUM
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DP - PLASTIC DRUM
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	T - TRUCK

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name

Signature

111416  
Shipping Date

### Section II

### TRANSPORTER (Generator completes a-d; Transporter I completes e-g; Transporter II completes h-n)

- a. Name: John J. Morris  
 b. Address: 710 Moore Street  
Oxford, Georgia 30054
- c. Drive Name/Title: Ken Johnson  
 d. Phone No.: (404) 682-4735 e. Truck No.: F350  
 f. Vehicle License No/State: \_\_\_\_\_  
 Acknowledgment of Receipt of Materials. 111216
- g. Driver Signature John J. Morris Shipping Date 111216

- h. Name: \_\_\_\_\_  
 i. Address: \_\_\_\_\_
- j. Drive Name/Title: \_\_\_\_\_  
 k. Phone No.: \_\_\_\_\_ l. Truck No.: \_\_\_\_\_  
 m. Vehicle License No/State: \_\_\_\_\_  
 Acknowledgment of Receipt of Materials. 111216
- n. Driver Signature \_\_\_\_\_ Shipping Date 111216

### Section III

### DESTINATION (Destination site completes e-f)

- a. Site Name: Aqua-Terra  
 b. Physical Address: 710 Moore Street  
Oxford, Georgia 30054
- e. Discrepancy Indication Space: \_\_\_\_\_

- c. Phone No.: (678) 625-4025  
 d. Mailing Address: P.O. Box 98  
Oxford, Georgia 30054

I hereby certify that the above material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent

Signature

111416  
Shipping Date

# Aqua-Terra

Recycling and Treatment

## CERTIFICATE OF TREATMENT

The following non-hazardous soil cuttings was received at Aqua-Terra Recycling and Treatment's facility in Oxford, Georgia on November 17, 2016 under manifest number 6132 for S&ME, Inc.

Thirteen (13) 55- gallon drum(s) of Soil Cuttings

Generator Location: Georgia Department of Transportation  
Gainesville District Office  
2505 Athens Hwy  
Gainesville, GA

All soil cuttings were removed from the drums and disposed of at the Republic Landfill in Winder, Georgia under Aqua-Terra Recycling and Treatment's profile.

Drums that are in good condition are cleaned, rinsed and painted for future re-use. Any drums that are deemed not reusable are cleaned, rinsed and crushed, then shipped to LB Recycling in Covington, Georgia.

Maef

Misty Lefebvre  
Office Manager

11/17/14

Date

# Aqua-Terra

Recycling and Treatment

710 Moore Street • P.O. Box 98

Oxford, Georgia 30054

**Phone: (678) 625-4025**

**Fax: (678) 625-4944**

## NON-HAZARDOUS WASTE MANIFEST

6135

### Section I

### GENERATOR (Generator completes all of Section 1)

a. Generator Name: *Lewis Generating & Treatment*  
 b. Address: *18 Hickory Dr  
Forest Park, GA*

c. Phone No.: *(678) 625-4735*  
 If owner generating facility differs from the generator, provide:  
 d. Owner's Name: *Lewis Generating & Treatment*  
 e. Description of Waste: *Pigment*

g. Generating Location: *Lewis Generating & Treatment*  
 h. Address: *2505 Atlanta Hwy  
Forest Park, GA*

i. Phone No.: \_\_\_\_\_  
 j. Owner's Phone No.: \_\_\_\_\_

Quantity	Gallons	Type	TYPE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DM - METAL DRUM
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DP - PLASTIC DRUM
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	T - TRUCK

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name

Signature

*111446*

Shipping Date

### Section II

### TRANSPORTER (Generator completes a-d; Transporter I completes e-g; Transporter II completes h-n)

a. Name: *Aqua-Terra*  
 b. Address: *710 Moore Street  
Oxford, GA 30054*

c. Drive Name/Title: *Driver Name*  
 d. Phone No.: *(678) 625-4025* e. Truck No.: *111446*  
 f. Vehicle License No/State: \_\_\_\_\_

Acknowledgment of Receipt of Materials.

Driver Signature

Shipping Date

h. Name: \_\_\_\_\_  
 i. Address: \_\_\_\_\_

j. Drive Name/Title: \_\_\_\_\_  
 k. Phone No.: \_\_\_\_\_ l. Truck No.: \_\_\_\_\_  
 m. Vehicle License No/State: \_\_\_\_\_

Acknowledgment of Receipt of Materials.

n. \_\_\_\_\_  
 Driver Signature \_\_\_\_\_  
 Shipping Date

### Section III

### DESTINATION (Destination site completes e-f)

a. Site Name: **Aqua-Terra**  
 b. Physical Address: **710 Moore Street**  
**Oxford, Georgia 30054**

e. Discrepancy Indication Space: \_\_\_\_\_

c. Phone No.: **(678) 625-4025**  
 d. Mailing Address: **P.O. Box 98**  
**Oxford, Georgia 30054**

I hereby certify that the above material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent

Signature

*111446*

Shipping Date

# Aqua-Terra

Recycling and Treatment

## CERTIFICATE OF TREATMENT

The following non-hazardous wastewater was received at Aqua-Terra Recycling and Treatment's facility in Oxford, Georgia on November 17, 2016 under manifest number 6135 for S & ME, Inc.

Five (5) 55-gallon drum(s) of petroleum contact water

**Generator Location:** Georgia Department of Transportation  
Gainesville District Office  
2505 Athens Hwy  
Gainesville, GA

Any free petroleum hydrocarbons from this wastewater was separated and taken to an oil processor for re-use. The water was treated by biological and/or physical/chemical processes, then batch tested and discharged to the Newton County sewer system in accordance with Aqua-Terra Recycling & Treatment's Industrial Wastewater Discharge Permit No. 006.

Drums that are in good condition are cleaned, rinsed and painted for future re-use. Any drums that are deemed not reusable are cleaned, rinsed and crushed, then shipped to LB Recycling in Covington, Georgia.

*Walt*

Misty Lefebvre  
Office Manager

11/17/14

Date

## **Appendix IV – Surface Water Laboratory Analytical Report**

November 01, 2016

## S&ME Inc. - Kennesaw GA

Sample Delivery Group: L868690  
Samples Received: 10/27/2016  
Project Number: 446814073A  
Description: Gainesville DOT

Report To: Peter Fleury  
3380 Town Point Drive Suite 140  
Kennesaw, GA 30144

Entire Report Reviewed By:



Jeff Carr  
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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ONE LAB. NATIONWIDE.



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<b><sup>2</sup>Tc: Table of Contents</b>	<b>2</b>	<b><sup>2</sup>Tc</b>
<b><sup>3</sup>Ss: Sample Summary</b>	<b>3</b>	<b><sup>3</sup>Ss</b>
<b><sup>4</sup>Cn: Case Narrative</b>	<b>4</b>	<b><sup>4</sup>Cn</b>
<b><sup>5</sup>Sr: Sample Results</b>	<b>5</b>	<b><sup>5</sup>Sr</b>
SW-1 L868690-01	5	
SW-2 L868690-02	7	
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<b><sup>6</sup>Qc: Quality Control Summary</b>	<b>11</b>	<b><sup>6</sup>Qc</b>
Volatile Organic Compounds (GC/MS) by Method 8260B	11	
<b><sup>7</sup>Gl: Glossary of Terms</b>	<b>17</b>	<b><sup>7</sup>Gl</b>
<b><sup>8</sup>Al: Accreditations &amp; Locations</b>	<b>18</b>	<b><sup>8</sup>Al</b>
<b><sup>9</sup>Sc: Chain of Custody</b>	<b>19</b>	<b><sup>9</sup>Sc</b>

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SW-1 L868690-01 GW		Collected by BJ Wagner	Collected date/time 10/25/16 12:07	Received date/time 10/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (GC/MS) by Method 8260B	WG921625	1	10/30/16 02:12	10/30/16 02:12
				Analyst ACG
SW-2 L868690-02 GW		Collected by BJ Wagner	Collected date/time 10/25/16 12:20	Received date/time 10/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (GC/MS) by Method 8260B	WG921625	1	10/30/16 02:35	10/30/16 02:35
				Analyst ACG
SW-3 L868690-03 GW		Collected by BJ Wagner	Collected date/time 10/25/16 12:40	Received date/time 10/27/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (GC/MS) by Method 8260B	WG921625	1	10/30/16 02:57	10/30/16 02:57
				Analyst ACG

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Technical Service Representative

### Sample Handling and Receiving

The analysis for 2-Chloroethyl Vinyl Ether was conducted from a chemically preserved container.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L868690-01	SW-1	8260B
L868690-02	SW-2	8260B

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> SC



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch	
Acetone	ND		50.0	1	10/30/2016 02:12	WG921625	<sup>1</sup> Cp
Acrolein	ND	J4	50.0	1	10/30/2016 02:12	WG921625	<sup>2</sup> Tc
Acrylonitrile	ND		10.0	1	10/30/2016 02:12	WG921625	<sup>3</sup> Ss
Benzene	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>4</sup> Cn
Bromobenzene	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>5</sup> Sr
Bromodichloromethane	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>6</sup> Qc
Bromoform	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>7</sup> Gl
Bromomethane	ND		5.00	1	10/30/2016 02:12	WG921625	<sup>8</sup> Al
n-Butylbenzene	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>9</sup> Sc
sec-Butylbenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
tert-Butylbenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
Carbon tetrachloride	ND		1.00	1	10/30/2016 02:12	WG921625	
Chlorobenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
Chlorodibromomethane	ND		1.00	1	10/30/2016 02:12	WG921625	
Chloroethane	ND		5.00	1	10/30/2016 02:12	WG921625	
2-Chloroethyl vinyl ether	ND		50.0	1	10/30/2016 02:12	WG921625	
Chloroform	ND		5.00	1	10/30/2016 02:12	WG921625	
Chloromethane	ND		2.50	1	10/30/2016 02:12	WG921625	
2-Chlorotoluene	ND		1.00	1	10/30/2016 02:12	WG921625	
4-Chlorotoluene	ND		1.00	1	10/30/2016 02:12	WG921625	
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/30/2016 02:12	WG921625	
1,2-Dibromoethane	ND		1.00	1	10/30/2016 02:12	WG921625	
Dibromomethane	ND		1.00	1	10/30/2016 02:12	WG921625	
1,2-Dichlorobenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
1,3-Dichlorobenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
1,4-Dichlorobenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
Dichlorodifluoromethane	ND		5.00	1	10/30/2016 02:12	WG921625	
1,1-Dichloroethane	ND		1.00	1	10/30/2016 02:12	WG921625	
1,2-Dichloroethane	ND		1.00	1	10/30/2016 02:12	WG921625	
1,1-Dichloroethene	2.78		1.00	1	10/30/2016 02:12	WG921625	
cis-1,2-Dichloroethene	ND		1.00	1	10/30/2016 02:12	WG921625	
trans-1,2-Dichloroethene	ND		1.00	1	10/30/2016 02:12	WG921625	
1,2-Dichloropropane	ND		1.00	1	10/30/2016 02:12	WG921625	
1,1-Dichloropropene	ND		1.00	1	10/30/2016 02:12	WG921625	
1,3-Dichloropropane	ND		1.00	1	10/30/2016 02:12	WG921625	
cis-1,3-Dichloropropene	ND		1.00	1	10/30/2016 02:12	WG921625	
trans-1,3-Dichloropropene	ND		1.00	1	10/30/2016 02:12	WG921625	
2,2-Dichloropropane	ND		1.00	1	10/30/2016 02:12	WG921625	
Di-isopropyl ether	ND		1.00	1	10/30/2016 02:12	WG921625	
Ethylbenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
Hexachloro-1,3-butadiene	ND		1.00	1	10/30/2016 02:12	WG921625	
Isopropylbenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
p-Isopropyltoluene	ND		1.00	1	10/30/2016 02:12	WG921625	
2-Butanone (MEK)	ND		10.0	1	10/30/2016 02:12	WG921625	
Methylene Chloride	ND		5.00	1	10/30/2016 02:12	WG921625	
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/30/2016 02:12	WG921625	
Methyl tert-butyl ether	ND		1.00	1	10/30/2016 02:12	WG921625	
Naphthalene	ND		5.00	1	10/30/2016 02:12	WG921625	
n-Propylbenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
Styrene	ND		1.00	1	10/30/2016 02:12	WG921625	
1,1,2-Tetrachloroethane	ND		1.00	1	10/30/2016 02:12	WG921625	
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/30/2016 02:12	WG921625	
Tetrachloroethene	ND		1.00	1	10/30/2016 02:12	WG921625	
Toluene	ND		5.00	1	10/30/2016 02:12	WG921625	
1,2,3-Trichlorobenzene	ND		1.00	1	10/30/2016 02:12	WG921625	
1,2,4-Trichlorobenzene	ND		1.00	1	10/30/2016 02:12	WG921625	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,1-Trichloroethane	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>1</sup> Cp
1,1,2-Trichloroethane	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>2</sup> Tc
Trichloroethene	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>3</sup> Ss
Trichlorofluoromethane	ND		5.00	1	10/30/2016 02:12	WG921625	<sup>4</sup> Cn
1,2,3-Trichloropropane	ND		2.50	1	10/30/2016 02:12	WG921625	<sup>5</sup> Sr
1,2,4-Trimethylbenzene	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>6</sup> Qc
1,3,5-Trimethylbenzene	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>7</sup> Gl
Vinyl chloride	ND		1.00	1	10/30/2016 02:12	WG921625	<sup>8</sup> Al
Xylenes, Total	ND		3.00	1	10/30/2016 02:12	WG921625	<sup>9</sup> Sc
(S) Toluene-d8	98.5		90.0-115		10/30/2016 02:12	WG921625	
(S) Dibromofluoromethane	88.3		79.0-121		10/30/2016 02:12	WG921625	
(S) 4-Bromofluorobenzene	95.4		80.1-120		10/30/2016 02:12	WG921625	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch	
Acetone	ND		50.0	1	10/30/2016 02:35	WG921625	<sup>1</sup> Cp
Acrolein	ND	J4	50.0	1	10/30/2016 02:35	WG921625	<sup>2</sup> Tc
Acrylonitrile	ND		10.0	1	10/30/2016 02:35	WG921625	<sup>3</sup> Ss
Benzene	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>4</sup> Cn
Bromobenzene	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>5</sup> Sr
Bromodichloromethane	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>6</sup> Qc
Bromoform	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>7</sup> Gl
Bromomethane	ND		5.00	1	10/30/2016 02:35	WG921625	<sup>8</sup> Al
n-Butylbenzene	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>9</sup> Sc
sec-Butylbenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
tert-Butylbenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
Carbon tetrachloride	ND		1.00	1	10/30/2016 02:35	WG921625	
Chlorobenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
Chlorodibromomethane	ND		1.00	1	10/30/2016 02:35	WG921625	
Chloroethane	ND		5.00	1	10/30/2016 02:35	WG921625	
2-Chloroethyl vinyl ether	ND		50.0	1	10/30/2016 02:35	WG921625	
Chloroform	ND		5.00	1	10/30/2016 02:35	WG921625	
Chloromethane	ND		2.50	1	10/30/2016 02:35	WG921625	
2-Chlorotoluene	ND		1.00	1	10/30/2016 02:35	WG921625	
4-Chlorotoluene	ND		1.00	1	10/30/2016 02:35	WG921625	
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/30/2016 02:35	WG921625	
1,2-Dibromoethane	ND		1.00	1	10/30/2016 02:35	WG921625	
Dibromomethane	ND		1.00	1	10/30/2016 02:35	WG921625	
1,2-Dichlorobenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
1,3-Dichlorobenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
1,4-Dichlorobenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
Dichlorodifluoromethane	ND		5.00	1	10/30/2016 02:35	WG921625	
1,1-Dichloroethane	ND		1.00	1	10/30/2016 02:35	WG921625	
1,2-Dichloroethane	ND		1.00	1	10/30/2016 02:35	WG921625	
1,1-Dichloroethene	ND		1.00	1	10/30/2016 02:35	WG921625	
cis-1,2-Dichloroethene	ND		1.00	1	10/30/2016 02:35	WG921625	
trans-1,2-Dichloroethene	ND		1.00	1	10/30/2016 02:35	WG921625	
1,2-Dichloropropane	ND		1.00	1	10/30/2016 02:35	WG921625	
1,1-Dichloropropene	ND		1.00	1	10/30/2016 02:35	WG921625	
1,3-Dichloropropane	ND		1.00	1	10/30/2016 02:35	WG921625	
cis-1,3-Dichloropropene	ND		1.00	1	10/30/2016 02:35	WG921625	
trans-1,3-Dichloropropene	ND		1.00	1	10/30/2016 02:35	WG921625	
2,2-Dichloropropane	ND		1.00	1	10/30/2016 02:35	WG921625	
Di-isopropyl ether	ND		1.00	1	10/30/2016 02:35	WG921625	
Ethylbenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
Hexachloro-1,3-butadiene	ND		1.00	1	10/30/2016 02:35	WG921625	
Isopropylbenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
p-Isopropyltoluene	ND		1.00	1	10/30/2016 02:35	WG921625	
2-Butanone (MEK)	ND		10.0	1	10/30/2016 02:35	WG921625	
Methylene Chloride	ND		5.00	1	10/30/2016 02:35	WG921625	
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/30/2016 02:35	WG921625	
Methyl tert-butyl ether	ND		1.00	1	10/30/2016 02:35	WG921625	
Naphthalene	ND		5.00	1	10/30/2016 02:35	WG921625	
n-Propylbenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
Styrene	ND		1.00	1	10/30/2016 02:35	WG921625	
1,1,2-Tetrachloroethane	ND		1.00	1	10/30/2016 02:35	WG921625	
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/30/2016 02:35	WG921625	
Tetrachloroethene	ND		1.00	1	10/30/2016 02:35	WG921625	
Toluene	ND		5.00	1	10/30/2016 02:35	WG921625	
1,2,3-Trichlorobenzene	ND		1.00	1	10/30/2016 02:35	WG921625	
1,2,4-Trichlorobenzene	ND		1.00	1	10/30/2016 02:35	WG921625	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,1-Trichloroethane	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>1</sup> Cp
1,1,2-Trichloroethane	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>2</sup> Tc
Trichloroethene	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>3</sup> Ss
Trichlorofluoromethane	ND		5.00	1	10/30/2016 02:35	WG921625	<sup>4</sup> Cn
1,2,3-Trichloropropane	ND		2.50	1	10/30/2016 02:35	WG921625	<sup>5</sup> Sr
1,2,4-Trimethylbenzene	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>6</sup> Qc
1,3,5-Trimethylbenzene	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>7</sup> Gl
Vinyl chloride	ND		1.00	1	10/30/2016 02:35	WG921625	<sup>8</sup> Al
Xylenes, Total	ND		3.00	1	10/30/2016 02:35	WG921625	<sup>9</sup> Sc
(S) Toluene-d8	99.1		90.0-115		10/30/2016 02:35	WG921625	
(S) Dibromofluoromethane	92.8		79.0-121		10/30/2016 02:35	WG921625	
(S) 4-Bromofluorobenzene	96.5		80.1-120		10/30/2016 02:35	WG921625	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch	
Acetone	ND		50.0	1	10/30/2016 02:57	WG921625	<sup>1</sup> Cp
Acrolein	ND	J4	50.0	1	10/30/2016 02:57	WG921625	<sup>2</sup> Tc
Acrylonitrile	ND		10.0	1	10/30/2016 02:57	WG921625	<sup>3</sup> Ss
Benzene	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>4</sup> Cn
Bromobenzene	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>5</sup> Sr
Bromodichloromethane	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>6</sup> Qc
Bromoform	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>7</sup> Gl
Bromomethane	ND		5.00	1	10/30/2016 02:57	WG921625	<sup>8</sup> Al
n-Butylbenzene	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>9</sup> Sc
sec-Butylbenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
tert-Butylbenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
Carbon tetrachloride	ND		1.00	1	10/30/2016 02:57	WG921625	
Chlorobenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
Chlorodibromomethane	ND		1.00	1	10/30/2016 02:57	WG921625	
Chloroethane	ND		5.00	1	10/30/2016 02:57	WG921625	
2-Chloroethyl vinyl ether	ND		50.0	1	10/30/2016 02:57	WG921625	
Chloroform	ND		5.00	1	10/30/2016 02:57	WG921625	
Chloromethane	ND		2.50	1	10/30/2016 02:57	WG921625	
2-Chlorotoluene	ND		1.00	1	10/30/2016 02:57	WG921625	
4-Chlorotoluene	ND		1.00	1	10/30/2016 02:57	WG921625	
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/30/2016 02:57	WG921625	
1,2-Dibromoethane	ND		1.00	1	10/30/2016 02:57	WG921625	
Dibromomethane	ND		1.00	1	10/30/2016 02:57	WG921625	
1,2-Dichlorobenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
1,3-Dichlorobenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
1,4-Dichlorobenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
Dichlorodifluoromethane	ND		5.00	1	10/30/2016 02:57	WG921625	
1,1-Dichloroethane	ND		1.00	1	10/30/2016 02:57	WG921625	
1,2-Dichloroethane	ND		1.00	1	10/30/2016 02:57	WG921625	
1,1-Dichloroethene	ND		1.00	1	10/30/2016 02:57	WG921625	
cis-1,2-Dichloroethene	ND		1.00	1	10/30/2016 02:57	WG921625	
trans-1,2-Dichloroethene	ND		1.00	1	10/30/2016 02:57	WG921625	
1,2-Dichloropropane	ND		1.00	1	10/30/2016 02:57	WG921625	
1,1-Dichloropropene	ND		1.00	1	10/30/2016 02:57	WG921625	
1,3-Dichloropropane	ND		1.00	1	10/30/2016 02:57	WG921625	
cis-1,3-Dichloropropene	ND		1.00	1	10/30/2016 02:57	WG921625	
trans-1,3-Dichloropropene	ND		1.00	1	10/30/2016 02:57	WG921625	
2,2-Dichloropropane	ND		1.00	1	10/30/2016 02:57	WG921625	
Di-isopropyl ether	ND		1.00	1	10/30/2016 02:57	WG921625	
Ethylbenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
Hexachloro-1,3-butadiene	ND		1.00	1	10/30/2016 02:57	WG921625	
Isopropylbenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
p-Isopropyltoluene	ND		1.00	1	10/30/2016 02:57	WG921625	
2-Butanone (MEK)	ND		10.0	1	10/30/2016 02:57	WG921625	
Methylene Chloride	ND		5.00	1	10/30/2016 02:57	WG921625	
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/30/2016 02:57	WG921625	
Methyl tert-butyl ether	ND		1.00	1	10/30/2016 02:57	WG921625	
Naphthalene	ND		5.00	1	10/30/2016 02:57	WG921625	
n-Propylbenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
Styrene	ND		1.00	1	10/30/2016 02:57	WG921625	
1,1,2-Tetrachloroethane	ND		1.00	1	10/30/2016 02:57	WG921625	
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/30/2016 02:57	WG921625	
Tetrachloroethene	ND		1.00	1	10/30/2016 02:57	WG921625	
Toluene	ND		5.00	1	10/30/2016 02:57	WG921625	
1,2,3-Trichlorobenzene	ND		1.00	1	10/30/2016 02:57	WG921625	
1,2,4-Trichlorobenzene	ND		1.00	1	10/30/2016 02:57	WG921625	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch	
1,1,1-Trichloroethane	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>1</sup> Cp
1,1,2-Trichloroethane	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>2</sup> Tc
Trichloroethene	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>3</sup> Ss
Trichlorofluoromethane	ND		5.00	1	10/30/2016 02:57	WG921625	<sup>4</sup> Cn
1,2,3-Trichloropropane	ND		2.50	1	10/30/2016 02:57	WG921625	<sup>5</sup> Sr
1,2,4-Trimethylbenzene	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>6</sup> Qc
1,3,5-Trimethylbenzene	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>7</sup> Gl
Vinyl chloride	ND		1.00	1	10/30/2016 02:57	WG921625	<sup>8</sup> Al
Xylenes, Total	ND		3.00	1	10/30/2016 02:57	WG921625	<sup>9</sup> Sc
(S) Toluene-d8	101		90.0-115		10/30/2016 02:57	WG921625	
(S) Dibromofluoromethane	90.1		79.0-121		10/30/2016 02:57	WG921625	
(S) 4-Bromofluorobenzene	97.4		80.1-120		10/30/2016 02:57	WG921625	



## Method Blank (MB)

(MB) R3175033-3 10/29/16 21:06

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Acetone	U		10.0	50.0	<sup>1</sup> Cp
Acrolein	U		8.87	50.0	<sup>2</sup> Tc
Acrylonitrile	U		1.87	10.0	<sup>3</sup> Ss
Benzene	U		0.331	1.00	<sup>4</sup> Cn
Bromobenzene	U		0.352	1.00	<sup>5</sup> Sr
Bromodichloromethane	U		0.380	1.00	<sup>6</sup> Qc
Bromoform	U		0.469	1.00	<sup>7</sup> Gl
Bromomethane	U		0.866	5.00	<sup>8</sup> Al
n-Butylbenzene	U		0.361	1.00	<sup>9</sup> Sc
sec-Butylbenzene	U		0.365	1.00	
tert-Butylbenzene	U		0.399	1.00	
Carbon tetrachloride	U		0.379	1.00	
Chlorobenzene	U		0.348	1.00	
Chlorodibromomethane	U		0.327	1.00	
Chloroethane	U		0.453	5.00	
2-Chloroethyl vinyl ether	U		3.01	50.0	
Chloroform	U		0.324	5.00	
Chloromethane	U		0.276	2.50	
2-Chlorotoluene	U		0.375	1.00	
4-Chlorotoluene	U		0.351	1.00	
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	
1,2-Dibromoethane	U		0.381	1.00	
Dibromomethane	U		0.346	1.00	
1,2-Dichlorobenzene	U		0.349	1.00	
1,3-Dichlorobenzene	U		0.220	1.00	
1,4-Dichlorobenzene	U		0.274	1.00	
Dichlorodifluoromethane	U		0.551	5.00	
1,1-Dichloroethane	U		0.259	1.00	
1,2-Dichloroethane	U		0.361	1.00	
1,1-Dichloroethene	U		0.398	1.00	
cis-1,2-Dichloroethene	U		0.260	1.00	
trans-1,2-Dichloroethene	U		0.396	1.00	
1,2-Dichloropropane	U		0.306	1.00	
1,1-Dichloropropene	U		0.352	1.00	
1,3-Dichloropropane	U		0.366	1.00	
cis-1,3-Dichloropropene	U		0.418	1.00	
trans-1,3-Dichloropropene	U		0.419	1.00	
2,2-Dichloropropane	U		0.321	1.00	
Di-isopropyl ether	U		0.320	1.00	
Ethylbenzene	U		0.384	1.00	



## Method Blank (MB)

(MB) R3175033-3 10/29/16 21:06

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l								
Hexachloro-1,3-butadiene	U		0.256	1.00								
Isopropylbenzene	U		0.326	1.00								
p-Isopropyltoluene	U		0.350	1.00								
2-Butanone (MEK)	U		3.93	10.0								
Methylene Chloride	U		1.00	5.00								
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0								
Methyl tert-butyl ether	U		0.367	1.00								
Naphthalene	U		1.00	5.00								
n-Propylbenzene	U		0.349	1.00								
Styrene	U		0.307	1.00								
1,1,2-Tetrachloroethane	U		0.385	1.00								
1,1,2,2-Tetrachloroethane	U		0.130	1.00								
Tetrachloroethene	U		0.372	1.00								
Toluene	U		0.780	5.00								
1,2,3-Trichlorobenzene	U		0.230	1.00								
1,2,4-Trichlorobenzene	U		0.355	1.00								
1,1,1-Trichloroethane	U		0.319	1.00								
1,1,2-Trichloroethane	U		0.383	1.00								
Trichloroethene	U		0.398	1.00								
Trichlorofluoromethane	U		1.20	5.00								
1,2,3-Trichloropropane	U		0.807	2.50								
1,2,4-Trimethylbenzene	U		0.373	1.00								
1,3,5-Trimethylbenzene	U		0.387	1.00								
Vinyl chloride	U		0.259	1.00								
Xylenes, Total	U		1.06	3.00								
(S) Toluene-d8	98.4			90.0-115								
(S) Dibromofluoromethane	97.7			79.0-121								
(S) 4-Bromofluorobenzene	97.4			80.1-120								

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175033-1 10/29/16 19:36 • (LCSD) R3175033-2 10/29/16 19:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Acetone	125	65.4	63.1	52.3	50.5	28.7-175			3.47	20.9
Acrolein	125	684	703	547	563	40.4-172	J4	J4	2.81	20
Acrylonitrile	125	90.9	86.7	72.7	69.3	58.2-145			4.73	20
Benzene	25.0	20.1	19.3	80.4	77.3	73.0-122			3.89	20
Bromobenzene	25.0	23.9	24.7	95.6	98.8	81.5-115			3.26	20



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175033-1 10/29/16 19:36 • (LCSD) R3175033-2 10/29/16 19:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromodichloromethane	25.0	21.4	22.1	85.6	88.5	75.5-121			3.34	20
Bromoform	25.0	27.9	26.8	112	107	71.5-131			4.12	20
Bromomethane	25.0	13.3	13.4	53.2	53.7	22.4-187			0.870	20
n-Butylbenzene	25.0	22.8	23.9	91.3	95.4	75.9-134			4.49	20
sec-Butylbenzene	25.0	25.3	25.6	101	103	80.6-126			1.27	20
tert-Butylbenzene	25.0	25.8	26.8	103	107	79.3-127			3.82	20
Carbon tetrachloride	25.0	21.2	20.3	84.9	81.0	70.9-129			4.63	20
Chlorobenzene	25.0	26.3	27.3	105	109	79.7-122			3.89	20
Chlorodibromomethane	25.0	28.2	27.8	113	111	78.2-124			1.24	20
Chloroethane	25.0	22.7	22.4	90.7	89.4	41.2-153			1.44	20
2-Chloroethyl vinyl ether	125	118	116	94.3	93.2	23.4-162			1.20	23.5
Chloroform	25.0	21.8	21.5	87.0	86.0	73.2-125			1.23	20
Chloromethane	25.0	15.4	15.1	61.6	60.5	55.8-134			1.74	20
2-Chlorotoluene	25.0	26.3	26.0	105	104	76.4-125			1.15	20
4-Chlorotoluene	25.0	25.5	25.1	102	101	81.5-121			1.33	20
1,2-Dibromo-3-Chloropropane	25.0	25.0	26.6	100	106	64.8-131			5.98	20
1,2-Dibromoethane	25.0	27.0	27.8	108	111	79.8-122			2.99	20
Dibromomethane	25.0	24.6	23.2	98.3	92.8	79.5-118			5.76	20
1,2-Dichlorobenzene	25.0	27.5	29.1	110	116	84.7-118			5.71	20
1,3-Dichlorobenzene	25.0	25.0	26.2	100	105	77.6-127			4.83	20
1,4-Dichlorobenzene	25.0	25.1	28.2	100	113	82.2-114			11.4	20
Dichlorodifluoromethane	25.0	25.1	24.1	100	96.2	56.0-134			4.24	20
1,1-Dichloroethane	25.0	20.9	20.0	83.5	79.8	71.7-127			4.48	20
1,2-Dichloroethane	25.0	21.7	21.2	86.9	84.9	65.3-126			2.28	20
1,1-Dichloroethene	25.0	23.7	21.9	94.8	87.7	59.9-137			7.76	20
cis-1,2-Dichloroethene	25.0	22.6	21.3	90.5	85.3	77.3-122			5.94	20
trans-1,2-Dichloroethene	25.0	21.8	21.2	87.0	84.7	72.6-125			2.66	20
1,2-Dichloropropane	25.0	22.2	22.2	88.7	88.9	77.4-125			0.250	20
1,1-Dichloropropene	25.0	22.1	20.4	88.3	81.6	72.5-127			7.91	20
1,3-Dichloropropane	25.0	26.2	26.8	105	107	80.6-115			2.50	20
cis-1,3-Dichloropropene	25.0	22.9	22.2	91.6	88.7	77.7-124			3.12	20
trans-1,3-Dichloropropene	25.0	22.2	21.3	88.6	85.4	73.5-127			3.73	20
2,2-Dichloropropane	25.0	19.1	18.5	76.3	73.8	61.3-134			3.31	20
Di-isopropyl ether	25.0	17.4	16.3	69.8	65.1	65.1-135			6.90	20
Ethylbenzene	25.0	27.1	27.0	108	108	80.9-121			0.360	20
Hexachloro-1,3-butadiene	25.0	25.4	26.2	102	105	73.7-133			3.33	20
Isopropylbenzene	25.0	25.6	25.8	102	103	81.6-124			0.720	20
p-Isopropyltoluene	25.0	25.7	27.6	103	110	77.6-129			7.11	20
2-Butanone (MEK)	125	74.5	73.6	59.6	58.9	46.4-155			1.23	20
Methylene Chloride	25.0	20.4	19.0	81.4	76.1	69.5-120			6.74	20

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175033-1 10/29/16 19:36 • (LCSD) R3175033-2 10/29/16 19:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	125	85.5	83.3	68.4	66.7	63.3-138			2.53	20
Methyl tert-butyl ether	25.0	19.8	19.9	79.4	79.6	70.1-125			0.260	20
Naphthalene	25.0	23.4	23.8	93.5	95.1	69.7-134			1.65	20
n-Propylbenzene	25.0	25.1	24.5	100	97.9	81.9-122			2.53	20
Styrene	25.0	26.4	26.6	106	107	79.9-124			0.760	20
1,1,2-Tetrachloroethane	25.0	27.7	29.1	111	116	78.5-125			4.81	20
1,1,2,2-Tetrachloroethane	25.0	23.1	22.7	92.4	90.6	79.3-123			1.92	20
Tetrachloroethene	25.0	25.7	27.7	103	111	73.5-130			7.43	20
Toluene	25.0	22.2	21.6	88.6	86.2	77.9-116			2.74	20
1,2,3-Trichlorobenzene	25.0	25.9	27.2	104	109	75.7-134			4.99	20
1,2,4-Trichlorobenzene	25.0	26.9	26.6	108	106	76.1-136			1.45	20
1,1,1-Trichloroethane	25.0	21.1	21.0	84.4	83.9	71.1-129			0.580	20
1,1,2-Trichloroethane	25.0	26.2	26.1	105	104	81.6-120			0.490	20
Trichloroethene	25.0	25.9	23.8	104	95.0	79.5-121			8.68	20
Trichlorofluoromethane	25.0	24.5	22.9	98.1	91.8	49.1-157			6.69	20
1,2,3-Trichloropropane	25.0	26.9	26.3	108	105	74.9-124			2.19	20
1,2,4-Trimethylbenzene	25.0	25.1	26.4	100	106	79.0-122			5.31	20
1,3,5-Trimethylbenzene	25.0	25.2	25.1	101	100	81.0-123			0.320	20
Vinyl chloride	25.0	21.7	20.7	87.0	82.9	61.5-134			4.77	20
Xylenes, Total	75.0	76.9	78.0	103	104	79.2-122			1.42	20
(S) Toluene-d8				98.3	94.5	90.0-115				
(S) Dibromofluoromethane				95.6	90.4	79.0-121				
(S) 4-Bromofluorobenzene				96.2	94.8	80.1-120				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## L868801-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L868801-01 10/29/16 23:35 • (MS) R3175033-4 10/29/16 21:43 • (MSD) R3175033-5 10/29/16 22:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %	
Acetone	125	U	5720	12500	22.9	49.9	200	25.0-156	J6	J3	74.2	21.5
Acrolein	125	U	69500	146000	278	586	200	34.0-194	J5	J3 J5	71.2	21.5
Acrylonitrile	125	U	8180	17000	32.7	67.8	200	55.9-161	J6	J3	69.9	20
Benzene	25.0	8970	15400	14000	128	101	200	58.6-133			9.16	20
Bromobenzene	25.0	U	2180	4640	43.7	92.8	200	70.6-125	J6	J3	72.0	20
Bromodichloromethane	25.0	U	2020	4330	40.4	86.6	200	69.2-127	J6	J3	72.7	20
Bromoform	25.0	U	2530	5150	50.6	103	200	66.3-140	J6	J3	68.3	20
Bromomethane	25.0	U	1270	2270	25.4	45.4	200	16.6-183	J3		56.5	20.5
n-Butylbenzene	25.0	U	2330	4610	46.6	92.2	200	64.8-145	J6	J3	65.7	20
sec-Butylbenzene	25.0	U	2380	5170	47.7	103	200	66.8-139	J6	J3	73.9	20

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc



## L868801-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L868801-01 10/29/16 23:35 • (MS) R3175033-4 10/29/16 21:43 • (MSD) R3175033-5 10/29/16 22:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD	RPD Limits
tert-Butylbenzene	25.0	U	2570	4950	51.4	98.9	200	67.1-138	J6	J3	63.2	20
Carbon tetrachloride	25.0	U	2040	4220	40.8	84.4	200	60.6-139	J6	J3	69.5	20
Chlorobenzene	25.0	U	2690	5450	53.7	109	200	70.1-130	J6	J3	67.9	20
Chlorodibromomethane	25.0	U	2610	5370	52.3	107	200	71.6-132	J6	J3	69.0	20
Chloroethane	25.0	U	2150	4200	42.9	84.0	200	33.3-155		J3	64.7	20
2-Chloroethyl vinyl ether	125	U	9600	22000	38.4	88.1	200	5.00-149		J3	78.5	40
Chloroform	25.0	425	2620	4760	43.9	86.7	200	66.1-133	J6	J3	58.0	20
Chloromethane	25.0	U	1330	2560	26.6	51.2	200	40.7-139	J6	J3	63.1	20
2-Chlorotoluene	25.0	U	2430	5030	48.7	101	200	66.9-134	J6	J3	69.5	20
4-Chlorotoluene	25.0	U	2300	4580	46.0	91.6	200	66.8-134	J6	J3	66.3	20
1,2-Dibromo-3-Chloropropane	25.0	U	2180	4800	43.6	96.0	200	63.9-142	J6	J3	75.0	20.2
1,2-Dibromoethane	25.0	U	2400	5070	47.9	101	200	73.8-131	J6	J3	71.6	20
Dibromomethane	25.0	U	2160	4520	43.1	90.4	200	72.8-127	J6	J3	70.8	20
1,2-Dichlorobenzene	25.0	U	2730	5310	54.5	106	200	77.4-127	J6	J3	64.3	20
1,3-Dichlorobenzene	25.0	U	2370	4920	47.3	98.4	200	67.9-136	J6	J3	70.0	20
1,4-Dichlorobenzene	25.0	U	2570	5140	51.5	103	200	74.4-123	J6	J3	66.6	20
Dichlorodifluoromethane	25.0	U	2140	4210	42.8	84.3	200	42.2-146		J3	65.2	20
1,1-Dichloroethane	25.0	1690	4300	5970	52.1	85.6	200	64.0-134	J6	J3	32.6	20
1,2-Dichloroethane	25.0	1820	4390	5850	51.4	80.7	200	60.7-132	J6	J3	28.7	20
1,1-Dichloroethene	25.0	U	2110	4270	42.3	85.3	200	48.8-144	J6	J3	67.4	20
cis-1,2-Dichloroethene	25.0	371	2640	4670	45.4	86.1	200	60.6-136	J6	J3	55.6	20
trans-1,2-Dichloroethene	25.0	85.0	2270	4090	43.8	80.0	200	61.0-132	J6	J3	57.0	20
1,2-Dichloropropane	25.0	6660	10900	11500	84.3	96.3	200	69.7-130			5.37	20
1,1-Dichloropropene	25.0	U	2080	4260	41.6	85.1	200	61.5-136	J6	J3	68.7	20
1,3-Dichloropropane	25.0	U	2420	5100	48.5	102	200	74.3-123	J6	J3	71.2	20
cis-1,3-Dichloropropene	25.0	U	2050	4270	41.0	85.4	200	71.1-129	J6	J3	70.4	20
trans-1,3-Dichloropropene	25.0	U	1930	4050	38.6	81.1	200	66.3-136	J6	J3	71.0	20
2,2-Dichloropropane	25.0	U	2080	4340	41.6	86.7	200	54.9-142	J6	J3	70.3	20
Di-isopropyl ether	25.0	U	1570	3190	31.5	63.8	200	59.9-140	J6	J3	67.9	20
Ethylbenzene	25.0	140	2680	5230	50.8	102	200	62.7-136	J6	J3	64.5	20
Hexachloro-1,3-butadiene	25.0	U	2640	5130	52.8	103	200	61.1-144	J6	J3	64.1	20.1
Isopropylbenzene	25.0	U	2570	4810	51.5	96.2	200	67.4-136	J6	J3	60.6	20
p-Isopropyltoluene	25.0	U	2520	4970	50.4	99.4	200	62.8-143	J6	J3	65.5	20
2-Butanone (MEK)	125	937	7100	13000	24.7	48.3	200	45.0-156	J6	J3	58.8	20.8
Methylene Chloride	25.0	U	1790	3600	35.8	71.9	200	61.5-125	J6	J3	67.1	20
4-Methyl-2-pentanone (MIBK)	125	4720	13600	21900	35.5	68.7	200	60.7-150	J6	J3	46.8	20
Methyl tert-butyl ether	25.0	U	1810	3860	36.3	77.2	200	61.4-136	J6	J3	72.1	20
Naphthalene	25.0	907	3570	5860	53.3	99.1	200	61.8-143	J6	J3	48.6	20
n-Propylbenzene	25.0	U	2410	4810	48.2	96.1	200	63.2-139	J6	J3	66.4	20
Styrene	25.0	U	2570	5210	51.4	104	200	68.2-133	J6	J3	67.8	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## L868801-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L868801-01 10/29/16 23:35 • (MS) R3175033-4 10/29/16 21:43 • (MSD) R3175033-5 10/29/16 22:05

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD	RPD Limits
1,1,2-Tetrachloroethane	25.0	U	2610	5360	52.3	107	200	70.5-132	J6	J3	68.9	20
1,1,2,2-Tetrachloroethane	25.0	U	2020	4730	40.4	94.6	200	64.9-145	J6	J3	80.2	20
Tetrachloroethene	25.0	206	2870	5230	53.2	101	200	57.4-141	J6	J3	58.5	20
Toluene	25.0	413	2620	4730	44.2	86.4	200	67.8-124	J6	J3	57.4	20
1,2,3-Trichlorobenzene	25.0	U	2530	5060	50.6	101	200	65.7-143	J6	J3	66.6	20
1,2,4-Trichlorobenzene	25.0	U	2590	5110	51.8	102	200	67.0-146	J6	J3	65.4	20
1,1,1-Trichloroethane	25.0	U	2170	4180	43.3	83.6	200	58.7-134	J6	J3	63.5	20
1,1,2-Trichloroethane	25.0	U	2540	4960	50.8	99.3	200	74.1-130	J6	J3	64.6	20
Trichloroethene	25.0	U	2240	4530	44.9	90.7	200	48.9-148	J6	J3	67.5	20
Trichlorofluoromethane	25.0	U	2280	4600	45.6	92.0	200	39.9-165	J3		67.4	20
1,2,3-Trichloropropane	25.0	U	2440	5150	48.8	103	200	71.5-134	J6	J3	71.4	20
1,2,4-Trimethylbenzene	25.0	U	2440	4690	48.8	93.9	200	60.5-137	J6	J3	63.2	20
1,3,5-Trimethylbenzene	25.0	U	2420	5120	48.4	102	200	67.9-134	J6	J3	71.7	20
Vinyl chloride	25.0	44900	66600	56100	435	224	200	44.3-143	E V	E V	17.2	20
Xylenes, Total	75.0	351	7860	15300	50.1	99.4	200	65.6-133	J6	J3	64.0	20
(S) Toluene-d8				102	96.8			90.0-115				
(S) Dibromofluoromethane				90.8	94.0			79.0-121				
(S) 4-Bromofluorobenzene				101	97.6			80.1-120				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc



## Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

## Qualifier      Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> AI<sup>9</sup> SC



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey—NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio—VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc





ANALYTICAL LABORATORY

## Cooler Receipt Form

Client:	Smoker	SDG#	868690
Cooler Received/Opened On:	10/27/16	Temperature Upon Receipt:	2.1 °c
Received By:	Joseph Roberts		
Signature:			
Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	<input checked="" type="checkbox"/>		
Were custody papers properly filled out?	<input checked="" type="checkbox"/>		
Did all bottles arrive in good condition?	<input checked="" type="checkbox"/>		
Were correct bottles used for the analyses requested?	<input checked="" type="checkbox"/>		
Was sufficient amount of sample sent in each bottle?	<input checked="" type="checkbox"/>		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	<input checked="" type="checkbox"/>		
If applicable, was an observable VOA headspace present?		<input checked="" type="checkbox"/>	
Non Conformance Generated. (If yes see attached NCF)			

## **Appendix V – Field Data Sheets**

## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainesville DOT Sampler: Taylor Gable

Project Number: 4U68-101-073 Date: 10-28-16 Well ID: MW-1D

Field Conditions: Sun 73°

Purge Method: 1 min Sample Method: 2 min

## WELL DATA

1. Depth to Bottom of Well: 65.13 (ft)

2. Depth to Product: - (ft)

3. Depth to Water: 35.13 (ft)

4. Thickness of Product: - (ft)

5. Height of Water Column: 30.00 (ft)  
(Line 1 - Line 3)

6. Water Volume in Well: 4.92 (gal)  
(For a 2" well = Line 5 x 0.16)  
(For a 4" well = Line 5 x 0.64)

7. Min. Purge Volume: 14.76 (gal)  
(Line 6 x 3)

8. Volume Actually Purged: 3 (gal) Date/time: 10-

9. Did Well Go Dry? No

10. Disposal of Purge Water: Drum

10. Disposal of Purge Water: Drum

Comments: Sample @ 1205

Monitoring Well Development  
Field Data Sheet

**SITE DATA**

Project Name: Gainesville DOT Sampler: Taylor Gable

Project Number: 4468-12-073 Date: 10-25-16 Well ID: MW-2D

Field Conditions: Sunny 70°

Purge Method: Pump Sample Method: Pump

**WELL DATA**

1. Depth to Bottom of Well: 75.05 (ft)

2. Depth to Product: - (ft)

3. Depth to Water: 30.60 (ft)

4. Thickness of Product: - (ft)

5. Height of Water Column: 44.45 (ft)  
(Line 1 - Line 3)

6. Water Volume in Well: 7.28 (gal)

(For a 2" well = Line 5 x 0.16)

(For a 4" well = Line 5 x 0.64)

7. Min. Purge Volume: 21.46 (gal)  
(Line 6 x 3)

8. Volume Actually Purged: 8 (gal) Date/time: 10-25 : 0925 to 1046

9. Did Well Go Dry? No

10. Disposal of Purge Water: Pump

Time	Volume	pH (SU)	Temp. (°)	Cond. ( )	Turb. (NTU)	ORP (mV)	DO (mg/L)	WL
0925	1 gal	6.95	16.99	0.283	44.2	403	3.91	34.78
0930	1.5 gal	6.86	17.35	0.283	58.5	384	3.89	35.45
0935	2.0 gal	6.93	17.89	0.283	85.5	367	3.95	36.40
0940	2.5 gal	6.93	18.12	0.283	113	358	3.66	37.01
0945	2.75 gal	6.91	18.77	0.285	124	349	3.64	38.89
0950	3 gal	6.84	19.29	0.286	98.9	338	3.40	39.42
0955	3.25 gal	6.89	19.81	0.284	10.6	328	3.46	39.75
1000	3.5 gal	6.89	20.17	0.280	69.1	319	3.41	40.54
1005	3.75 gal	6.84	20.31	0.274	46.1	312	3.34	41.25
1010	4 gal	6.89	20.66	0.280	24.1	301	3.36	43.00
1015	4.25 gal	6.90	20.85	0.280	21.0	295	3.33	43.03
1020	4.5 gal	6.89	20.97	0.279	19.1	291	3.46	44.00
1025	5.5 gal	6.94	21.04	0.280	14.6	282	3.44	46.02

Comments: Sample @ 1045

## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainesville DOT Sampler: Taylor Gable

Project Number: 4468-14-073 Date: 10-28-16 Well ID: 14W-2P

Field Conditions: Sunny 70°

Purge Method: Purge Sample Method: Purge Page: \_\_\_\_\_

## WELL DATA

Comments:

## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainesville DOT Sampler: Taylor Goble

Project Number: 4468-14-073 Date: 10-26-16 Well ID: 14W-3D

Field Conditions: Sunny 72°

Purge Method: Pump Sample Method: Pump

## WELL DATA

1. Depth to Bottom of Well: 52.63 (ft)

2. Depth to Product: \_\_\_\_\_ (ft)

3. Depth to Water: 28.21 (ft)

4. Thickness of Product: \_\_\_\_\_ (ft)

5. Height of Water Column: 27.42 (ft)  
(Line 1 - Line 3)

6. Water Volume in Well: 4.19 (gal)  
(For a 2" well = Line 5 x 0.16)  
\* (For a 4" well = Line 5 x 0.64)

7. Min. Purge Volume: 13.49 (gal)  
(Line 6 x 3)

8. Volume Actually Purged: 2.5 (gal) Date/time: 10.26 : 0900 to 0935

9. Did Well Go Dry? No

10. Disposal of Purge Water: Drum

Comments: Sample # 0937

## **Monitoring Well Development Field Data Sheet**

## SITE DATA

Project Name: Charlottesville Sampler: J. Wheat

Project Number: 4468-14-073A      Date: 10/24/16      Well ID: Min-4D

Field Conditions: Clear

Purge Method: low flow Sample Method: low flow

## WELL DATA

1. Depth to Bottom of Well: 69.81 (ft)

2. Depth to Product: NA (ft)

3. Depth to Water: 39.78 (ft)

4. Thickness of Product: NA (ft)

5. Height of Water Column: 30.63 (ft)  
(Line 1 - Line 3)

6. Water Volume in Well: 4,50 (gal)

(For a 2" well = Line 5 x 0.16)

(For a 4" well = Line 5 x 0.64)

- 7 Min. Purge Volume: 13.5 l (gal)

7. Min. Flue Volume: \_\_\_\_\_  
(Line 6 x 3)

- 8 Volume Actually Purged: 1 gal (gal) Date/time: 15

9. Did Well Go Dev? no

10. Disposal of Purge Water: down

10. Disposal of Purge Water:

**Comments:**

Sample C 16.0

Topped sample before turbidity, < 10 m, going to lake gel times are on CST

## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainesville DOT Sampler: J. Wheat

Project Number: 4468-14-073      Date: 10/26/16      Well ID: MW-101

Field Conditions: partly cloudy

Purge Method: Bailer Sample Method: Bailed

## WELL DATA

1. Depth to Bottom of Well: 45.41 (ft)
  2. Depth to Product: NA (ft)
  3. Depth to Water: 34.96 (ft)
  4. Thickness of Product: NA (ft)
  5. Height of Water Column: 10.45 (ft)  
(Line 1 - Line 3)
  6. Water Volume in Well: 1,67 (gal)  
(For a 2" well = Line 5 x 0.16)  
• (For a 4" well = Line 5 x 0.64)
  7. Min. Purge Volume: 5.02 (gal)  
(Line 6 x 3)
  8. Volume Actually Purged: 2 (gal) Date/time: \_\_\_\_\_ : to \_\_\_\_\_
  9. Did Well Go Dry? \_\_\_\_\_
  10. Disposal of Purge Water: Drum

Comments: Sampled Q 1220 on 10/24/16 w/ Saiter  
due to safety concerns

## Monitoring Well Development Field Data Sheet

### SITE DATA

Project Name: Gainesville DOT Sampler: Taylor Goode

Project Number: 4468-14-073 Date: 10-25-16 Well ID: 14W-14D

Field Conditions: Sunny 76°

Purge Method: Bump Sample Method: Bump

## WELL DATA

1. Depth to Bottom of Well: 75.25 (ft)
  2. Depth to Product: - (ft)
  3. Depth to Water: 7.10 (ft)
  4. Thickness of Product: - (ft)
  5. Height of Water Column: 68.14 (ft)  
(Line 1 – Line 3)
  6. Water Volume in Well: 11.14 (gal)  
(For a 2" well = Line 5 x 0.16)  
or  
(For a 4" well = Line 5 x 0.64)
  7. Min. Purge Volume: 33.52 (gal)  
(Line 6 x 3)
  8. Volume Actually Purged: 11.5 (gal) Date/time: 10-25, 1510 to 1600
  9. Did Well Go Dry? No
  10. Disposal of Purge Water: Drum

Comments: Sample @ 1600

## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Saintsville VOT Sampler: J. Wheat  
Project Number: 4468-14-073A Date: 10/24/14 Well ID: MW-1

**Field Conditions:** The field conditions are described as follows:

Purge Method: low flow Sample Method: low flow

## WELL DATA

1. Depth to Bottom of Well: 63.30 (ft)
  2. Depth to Product: NA (ft)
  3. Depth to Water: 44.52 (ft)
  4. Thickness of Product: NA (ft)
  5. Height of Water Column: 18.78 (ft)  
(Line 1 - Line 3)
  6. Water Volume in Well: 3.00 (gal)  
(For a 2" well = Line 5 x 0.16)  
• (For a 4" well = Line 5 x 0.64)
  7. Min. Purge Volume: 9.00 (gal)  
(Line 6 x 3)
  8. Volume Actually Purged: 3 (gal) Date/time: 1440: to 1455:
  9. Did Well Go Dry? no
  10. Disposal of Purge Water: drum

Comments: Sample P. 1455

Time & for CS

Monitoring Well Development  
Field Data Sheet

**SITE DATA**

Project Name: Gainesville DOT Sampler: J Whee  
 Project Number: 4468-14-073 Date: 10/25/16 Well ID: MW-2  
 Field Conditions: Clear  
 Purge Method: Low flow Sample Method: Low flow

**WELL DATA**

1. Depth to Bottom of Well: 51.63 (ft)
2. Depth to Product: NA (ft)
3. Depth to Water: 39.70 (ft)
4. Thickness of Product: NA (ft)
5. Height of Water Column: 11.93 (ft)  
(Line 1 - Line 3)
6. Water Volume in Well: 191 (gal)  
(For a 2" well = Line 5 x 0.16)  
(For a 4" well = Line 5 x 0.64)
7. Min. Purge Volume: 5.73 (gal)  
(Line 6 x 3)
8. Volume Actually Purged: 10 (gal) Date/time: 0905: to 1220
9. Did Well Go Dry? No
10. Disposal of Purge Water: drum

Time	Volume	pH (SU)	Temp. (°)	Cond. ( )	Turb. (NTU)	ORP (mV)	DO (mg/L)
0908	10ml/m						
0915	10ml/m	6.62	19.63	0.490	57.8	178	3.47
0918	10ml/m	6.47	19.95	0.442	43.6	184	3.75
0921	30ml/m	6.92	22.45	0.549	83.1	172	3.58
0924	30ml/m	6.90	22.96	0.487	59.3	166	2.59
0934	20ml/m	6.79	23.94	0.458	21.2	180	2.75
0938	20ml/m	6.81	23.56	0.410	17.3	176	2.90
0942	20ml/m	7.12	23.33	0.438	18.1	164	4.72
0949	20ml/m	7.42	25.38	0.454	15.1	145	3.15
0956	10ml/m	7.97	26.05	0.462	13.9	131	2.80
1002	10ml/m	8.09	26.45	0.466	13.8	123	2.99
1008	10ml/m	8.70	26.13	0.464	13.4	88	2.27
1014	10ml/m	8.73	26.61	0.509	11.7	87	2.23

Comments:

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## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainesville DJT Sampler: J. Wheat

Project Number: 4468-14-073 Date: 10/25/16 Well ID: MW-2

Field Conditions: Clear

Purge Method: low flow Sample Method: low flow Page: 2

## WELL DATA

Comments: purged 5x well volume, turbidity still high.  
Sample P 1218

## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainesville DOT Sampler: Taylor Gable

Project Number: 1468-14-073 Date: 10-24-16 Well ID: MW-4

Field Conditions: Sunny 65°

Purge Method: Pump Sample Method: Pump

## WELL DATA

1. Depth to Bottom of Well: 40.80 47.69 (ft)
  2. Depth to Product: - (ft)
  3. Depth to Water: 40.80 (ft)
  4. Thickness of Product: - (ft)
  5. Height of Water Column:  
(Line 1 - Line 3) 6.88 (ft)
  6. Water Volume in Well: 1.12 (gal)  
(For a 2" well = Line 5 x 0.16)  
(For a 4" well = Line 5 x 0.64)
  7. Min. Purge Volume:  
(Line 6 x 3) 3.36 (gal)
  8. Volume Actually Purged: 2.50 (gal) Date/time: 10-2
  9. Did Well Go Dry? N<sub>a</sub>
  10. Disposal of Purge Water: Drum

10-24-16

- Figure 1.** A schematic diagram of the experimental setup used to measure the effect of the magnetic field on the thermal conductivity of the nanocomposites.

Comments: Sample @ 1130

## **Monitoring Well Development Field Data Sheet**

## SITE DATA

Project Name: Waukesha Sampler: S. W. Neaf

Sampler: J. W. Neaf

Project Number: 4468-14-073 Date: 10/25/16 Well ID: MW-6

Date: 10/25/16 Well ID: MW-6

Field Conditions: Clear

Purge Method: Low flow Boiler Sample Method: Low flow Boiler  
WELL DATA

## WELL DATA

1. Depth to Bottom of Well: 47.18 (ft)

2. Depth to Product: NA (ft)

3. Depth to Water: 42.93 (ft)

4. Thickness of Product: NA (ft)

5. Height of Water Column: 4.25 (ft)  
(Line 1 - Line 3)

6. Water Volume in Well: 0.68 (gal)  
(For a 2" well = Line 5 x 0.16)  
• (For a 4" well = Line 5 x 0.64)

7. Min. Purge Volume: 2.04 (gal)  
(Line 6 x 3)

8. Volume Actually Purged: 0.5 (gal) Date/time: 4/11/01

9. Did Well Go Dry? Yes - recharged by next

10. Disposal of Purge Water: Drum

Comments: Not enough water in water column to force pump. Bailing well. Bailed 1/3 gal. Well went dry.

Sampled 10/26/16 @ 1130 using a baster

**Monitoring Well Development**  
**Field Data Sheet**

**SITE DATA**

Project Name: Gainesville DOT Sampler: J. Wheat  
 Project Number: 4468-14-073 Date: 10/25/16 Well ID: MW-7  
 Field Conditions: Clear  
 Purge Method: Low Flow Sample Method: Low Flow

**WELL DATA**

1. Depth to Bottom of Well: 53.91 (ft)
2. Depth to Product: NA (ft)
3. Depth to Water: 34.54 (ft)
4. Thickness of Product: NA (ft)
5. Height of Water Column: 19.37 (ft)  
(Line 1 - Line 3)
6. Water Volume in Well: 3.10 (gal)  
(For a 2" well = Line 5 x 0.16)  
(For a 4" well = Line 5 x 0.64)
7. Min. Purge Volume: 9.30 (gal)  
(Line 6 x 3)
8. Volume Actually Purged: 15.5 (gal) Date/time: 1531 to 1845
9. Did Well Go Dry? No
10. Disposal of Purge Water: Drum

Line	Volume	pH (SU)	Temp. (°)	Cond. ( )	Turb. (NTU)	ORP ( mV )	DO (mg/L)	H2O/wt
1533	200ml/m	6.24	24.69	0.207	278	220	3.71	37.90
1541	100ml/m	5.16	24.64	0.171	211	223	2.18	36.65
1547	100ml/m	4.85	25.19	0.170	127	231	3.82	36.88
1553	100ml/m	4.64	26.16	0.160	127	246	3.15	36.90
1601	100.0l/m	4.53	26.67	0.157	126	250	3.12	36.92
1610	100ml/m	4.46	26.93	0.156	145	262	3.16	36.93
1617	100ml/m	4.45	27.06	0.155	143	267	3.04	36.93
1624	100ml/m	4.45	27.25	0.155	142	264	3.07	36.94
1634	100ml/m	4.52	27.33	0.154	142	268	3.24	36.94
1641	100ml/m	4.49	27.40	0.154	136	274	3.14	36.95
1649	100ml/m	4.46	27.51	0.154	137	277	3.23	36.94
1654	100ml/m	4.44	27.50	0.154	151	280	3.16	36.94
178	100ml/m	4.42	27.95	0.154	154	286	3.91	37.27

Comments:

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## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainsville DOT

Sampler: J. Wheby

Project Number: 4468-14-073

Date: 10/25/16 Well ID: MW-7

Field Conditions: Clear

Purge Method: Low flow

Sample Method: low flow

Page: 2

## WELL DATA

#### Comments:

Sample E 1840, purged 5x well

Wt. wme still high turbidity

## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainesville DOT

Sampler: J. Wheat

Project Number: 4468-14-073

Date: 10/26/16

Well ID: MW-8

Field Conditions: Partly cloudy

Purge Method: Tow-Hat Bailes

Sample Method: ~~Draw-Hole~~ Darter

## WELL DATA

1. Depth to Bottom of Well: 53.75 (ft)

2. Depth to Product: 10' NA (ft)

3. Depth to Water: 19.91 (ft)

4. Thickness of Product: NA (ft)

5. Height of Water Column: ~~15.82~~ 13.82 (ft)  
(Line 1 - Line 3)

6. Water Volume in Well: ~~551~~ 2.21 (gal)

(For a 2" well = Line 5 x 0.16)

(For a 4" well = Line 5 x 0.64)

7. Min. Purge Volume: 7.59 6.63 (gal)

(Line 6 x 3) ~~12.66155x30~~

8. Volume Actually Purged: 10 gal (gal) Date/time: 10/15/15: to  
9. Did Well Go Dry? No

9. Did Well Go Dry: \_\_\_\_\_

10. Disposal of Purge Water: \_\_\_\_\_ Drum

Comments: Well visited was very turbid & Meter was reading 0.0 NTU. Calibrating meter  
Talked with ... well to turbid for pump & they also don't recommend flow  
flow with the height of the water column. Boiling wet.

Sampled 10/26/16 C-1200  
w/baiter

## **Monitoring Well Development Field Data Sheet**

## SITE DATA

Project Name: Gainesville DOT Sampler: Taylor Gobio

Project Number: 4468-14-073      Date: 10-26-16      Well ID: MW-9R

Field Conditions: Sunny 74°

Purge Method: long Sample Method: long

## WELL DATA

1. Depth to Bottom of Well: 38.51 (ft)

2. Depth to Product: - (ft)

3. Depth to Water: 29.93 (ft)

4. Thickness of Product: - (ft)

5. Height of Water Column: 8.58 (ft)  
(Line 1 - Line 3)

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6. Water Volume in Well: 1.40 (gal)  
(For a 2" well = Line 5 x 0.16)  
\* (For a 4" well = Line 5 x 0.64)

7. Min. Purge Volume: 4.22 (gal)  
(Line 6 x 3)

8. Volume Actually Purged: 8 (gal) Date/time: 10-26; 1120 to 1200

9. Did Well Go Dry? No

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10. Disposal of Purge Water: Drum

Comments: Removed 5' well volumes; turbidity wasn't below 10, but took sample. Sample P 1203

Monitoring Well Development  
Field Data Sheet

**SITE DATA**

Project Name: Gainesville DOT Sampler: Taylor Gobic  
 Project Number: 4468-11-073 Date: 10-24-06 Well ID: MW-11  
 Field Conditions: Sunny 74°  
 Purge Method: Pump Sample Method: Pump

**WELL DATA**

1. Depth to Bottom of Well: 50.97 (ft)
2. Depth to Product: - (ft)
3. Depth to Water: 40.80 (ft)
4. Thickness of Product: - (ft)
5. Height of Water Column: 10.17 (ft)  
(Line 1 – Line 3)
6. Water Volume in Well: 1.66 (gal)  
(For a 2" well = Line 5 x 0.16)  
(For a 4" well = Line 5 x 0.64)
7. Min. Purge Volume: 5.00 (gal)  
(Line 6 x 3)
8. Volume Actually Purged: 4.75 (gal) Date/time: 10-24 : 1325 to 14:40
9. Did Well Go Dry? No
10. Disposal of Purge Water: Drum

Time	Volume	pH (SU)	Temp. (°)	Cond. ( )	Turb. (NTU)	ORP ( mV)	DO (mg/L)	WL
13:25	1L	5.92	20.61	0.124	496	269	18.48	40.92
13:30	2L	5.86	20.46	0.120	383	269	16.49	40.99
13:35	3L	5.96	21.79	0.121	344	212	16.52	41.22
13:40	4L	5.76	21.59	0.133	284	217	16.59	41.53
13:45	5L	5.71	22.01	0.134	167	221	16.38	41.73
13:50	6L	5.75	22.77	0.137	119	225	16.31	41.91
13:55	7.25L	5.79	22.64	0.139	106	226	16.24	42.00
14:00	8.50L	5.83	23.33	0.139	99.5	227	16.08	42.15
14:05	9.75L	5.91	23.56	0.143	80.4	219	15.88	42.31
14:10	11.5L	5.92	24.34	0.142	66.5	210	15.61	42.02
14:15	13.5L	5.94	25.04	0.146	63.0	215	15.33	41.92
14:20	14.5L	5.79	26.22	0.145	61.4	214	14.94	41.90
14:25	15.0L	5.96	25.74	0.148	59.9	199	15.32	41.45'

Comments: Turbidity reading stabilized to within 1 NTU for consecutive readings. Electuted to take sample. Sample @ 1440

## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainesville DOT Sampler: Taylor Gobio

Project Number: 4468-14-073 Date: 10-24-16 Well ID: MW-11

Field Conditions: Sunny 74°

Purge Method: Purge Sample Method: \_\_\_\_\_ Page: \_\_\_\_\_

## WELL DATA

Comments: Turbidity reading stabilized to within 1 NTU for 5 consecutive readings. Electred to take sample.

## Monitoring Well Development Field Data Sheet

## SITE DATA

Project Name: Gainesville DOT Sampler: Taylor Goble

Project Number: 4468-14-073 Date: 10-24-16 Well ID: MW-13

Field Conditions: Sunny 75°

Purge Method: Pump Sample Method: Pump

## WELL DATA

1. Depth to Bottom of Well: 39.53 (ft)
  2. Depth to Product: - (ft)
  3. Depth to Water: 36.83 (ft)
  4. Thickness of Product: - (ft)
  5. Height of Water Column: 2.70 (ft)  
(Line 1 - Line 3)
  6. Water Volume in Well: 0.44 (gal)  
(For a 2" well = Line 5 x 0.16)  
(For a 4" well = Line 5 x 0.64)
  7. Min. Purge Volume: 1.32 (gal)  
(Line 6 x 3)
  8. Volume Actually Purged: 0.75 (gal) Date/time: 10-24-16; 1600 to 1635
  9. Did Well Go Dry? No
  10. Disposal of Purge Water: Drain

WU

Comments: Sample at 1640

Monitoring Well Development  
Field Data Sheet

**SITE DATA**

Project Name: Gainesville DOT Sampler: Taylor Gobie  
 Project Number: 4468-14-0734 Date: 11/16/16 Well ID: MW - 9R  
 Field Conditions: Sunny 68°  
 Purge Method: Pump Sample Method: Pump

**WELL DATA**

1. Depth to Bottom of Well: 38.51 (ft)
2. Depth to Product: - (ft)
3. Depth to Water: 30.79 (ft)
4. Thickness of Product: - (ft)
5. Height of Water Column: 7.72 (ft)  
(Line 1 - Line 3)
6. Water Volume in Well: 1.23 (gal)  
(For a 2" well = Line 5 x 0.16)  
(For a 4" well = Line 5 x 0.64)
7. Min. Purge Volume: 3.70 (gal)  
(Line 6 x 3)
8. Volume Actually Purged: 6.5 (gal) Date/time: 11-16-16; 1235 to 1335
9. Did Well Go Dry?
10. Disposal of Purge Water: Drum

Time	Volume	pH (SU)	Temp. (°)	Cond. ( )	Turb. (NTU)	ORP (mV)	DO (mg/L)	NL
1235	0.3	5.49	22.66	0.096	1000+	229	6.36	30.28
1240	1.2	5.31	22.88	0.097	1000+	230	4.81	30.30
1245	1.5	5.66	24.52	0.094	930	229	4.52	30.29
1250	2.0	5.69	24.83	0.094	189	224	4.35	30.28
1255	2.5	5.76	25.43	0.094	615	226	4.03	30.27
1300	3.0	5.82	25.90	0.094	555	225	3.85	30.27
1305	3.4	5.64	26.26	0.092	502	230	3.67	30.27
1310	4.0	5.77	26.68	0.092	466	230	3.44	30.27
1315	4.5	5.67	26.32	0.091	482	231	3.41	30.27
1320	5.0	5.66	26.90	0.099	443	237	3.17	30.27
1325	5.5	5.74	26.99	0.088	381	236	3.09	30.27
1330	6.0	5.66	27.13	0.087	340	239	2.91	30.27
1335	6.5	5.69	27.14	0.087	347	240	2.94	30.27

Comments: Poured 5 well volumes, sampled at 1337

Monitoring Well Development  
Field Data Sheet

**SITE DATA**

Project Name: Gainesville DOT Sampler: Taylor Gable  
 Project Number: 1468-140734 Date: 11-16-16 Well ID: MW-14  
 Field Conditions: Sunny 68°  
 Purge Method: Pump Sample Method: Purge

**WELL DATA**

1. Depth to Bottom of Well: 75.24 (ft)
2. Depth to Product: - (ft)
3. Depth to Water: 7.72 (ft)
4. Thickness of Product: - (ft)
5. Height of Water Column: 67.52 (ft)  
(Line 1 - Line 3)
6. Water Volume in Well: 10.8 (gal)  
(For a 2" well = Line 5 x 0.16)  
(For a 4" well = Line 5 x 0.64)
7. Min. Purge Volume: 32.4 (gal)  
(Line 6 x 3)
8. Volume Actually Purged: 3.5 (gal) Date/time: 11/16/16: 1010 to 1040
9. Did Well Go Dry? No
10. Disposal of Purge Water: Drum

Time	Volume	pH (SU)	Temp. (°)	Cond. ( )	Turb. (NTU)	ORP ( mV)	DO (mg/L)	WL
1010	0.3	5.80	20.98	0.089	14.2	214	15.26	7.61
1015	0.6	5.60	21.09	0.083	10.8	224	11.37	7.60
1020	2.0	5.57	21.39	0.078	6.10	232	8.62	7.62
1025	2.3	5.53	21.51	0.079	21.0	234	1.98	1.62
1030	3.0	5.55	21.98	0.079	7.04	236	6.66	1.62
1034	3.2	5.56	22.14	0.079	6.72	238	6.20	1.62
1040	3.5	5.56	22.43	0.079	6.39	239	6.12	1.63

Comments: Sampled at 1041

## **Appendix VI – Groundwater Laboratory Analytical Report**

November 16, 2016

## S&ME Inc. - Kennesaw GA

Sample Delivery Group: L869134  
Samples Received: 10/28/2016  
Project Number: 4468-14-073A  
Description: Gainesville DOT

Report To: Peter Fleury  
3380 Town Point Drive Suite 140  
Kennesaw, GA 30144

Entire Report Reviewed By:



Jeff Carr  
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



<sup>1</sup> Cp: Cover Page	1	<sup>1</sup> Cp
<sup>2</sup> Tc: Table of Contents	2	<sup>2</sup> Tc
<sup>3</sup> Ss: Sample Summary	3	<sup>3</sup> Ss
<sup>4</sup> Cn: Case Narrative	5	<sup>4</sup> Cn
<sup>5</sup> Sr: Sample Results	6	<sup>5</sup> Sr
MW-1 L869134-01	6	
MW-2 L869134-02	8	
MW-4 L869134-03	10	
MW-6 L869134-04	12	<sup>6</sup> Qc
MW-7 L869134-05	14	
MW-8 L869134-06	16	
MW-9R L869134-07	18	
MW-11 L869134-08	20	
MW-12 L869134-09	22	
MW-13 L869134-10	24	
<sup>6</sup> Qc: Quality Control Summary	26	
Volatile Organic Compounds (GC/MS) by Method 8260B	26	
<sup>7</sup> Gl: Glossary of Terms	34	
<sup>8</sup> Al: Accreditations & Locations	35	
<sup>9</sup> Sc: Chain of Custody	36	

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-1 L869134-01 GW		Collected by Taylor Goble	Collected date/time 10/24/16 14:55	Received date/time 10/28/16 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 10:14	11/04/16 10:14	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 19:21	11/08/16 19:21	JHH
MW-2 L869134-02 GW		Collected by Taylor Goble	Collected date/time 10/25/16 12:18	Received date/time 10/28/16 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 10:38	11/04/16 10:38	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 17:52	11/08/16 17:52	JHH
MW-4 L869134-03 GW		Collected by Taylor Goble	Collected date/time 10/24/16 11:30	Received date/time 10/28/16 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 11:01	11/04/16 11:01	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 19:33	11/08/16 19:33	JHH
MW-6 L869134-04 GW		Collected by Taylor Goble	Collected date/time 10/26/16 11:30	Received date/time 10/28/16 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 11:25	11/04/16 11:25	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 19:46	11/08/16 19:46	JHH
MW-7 L869134-05 GW		Collected by Taylor Goble	Collected date/time 10/25/16 18:40	Received date/time 10/28/16 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 11:48	11/04/16 11:48	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 18:05	11/08/16 18:05	JHH
MW-8 L869134-06 GW		Collected by Taylor Goble	Collected date/time 10/26/16 12:00	Received date/time 10/28/16 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 12:12	11/04/16 12:12	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 19:59	11/08/16 19:59	JHH
MW-9R L869134-07 GW		Collected by Taylor Goble	Collected date/time 10/26/16 12:03	Received date/time 10/28/16 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 12:36	11/04/16 12:36	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 20:12	11/08/16 20:12	JHH



## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-11 L869134-08 GW		Collected by Taylor Goble	Collected date/time 10/26/16 14:40	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 12:59	11/04/16 12:59
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 20:24	11/08/16 20:24
MW-12 L869134-09 GW		Collected by Taylor Goble	Collected date/time 10/24/16 14:25	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922005	1	11/02/16 20:23	11/02/16 20:23
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922005	1	11/08/16 20:37	11/08/16 20:37
MW-13 L869134-10 GW		Collected by Taylor Goble	Collected date/time 10/24/16 16:40	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922005	1	11/02/16 20:44	11/02/16 20:44
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922005	10	11/08/16 20:50	11/08/16 20:50
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922005	50	11/04/16 09:34	11/04/16 09:34

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Technical Service Representative

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> SC

### Sample Handling and Receiving

The analysis for 2-Chloroethyl Vinyl Ether was conducted from a chemically preserved container.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L869134-01	MW-1	8260B
L869134-02	MW-2	8260B
L869134-03	MW-4	8260B
L869134-04	MW-6	8260B
L869134-05	MW-7	8260B
L869134-06	MW-8	8260B
L869134-07	MW-9R	8260B
L869134-08	MW-11	8260B
L869134-09	MW-12	8260B
L869134-10	MW-13	8260B

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L869134-01	MW-1	8260B
L869134-03	MW-4	8260B
L869134-09	MW-12	8260B
L869134-10	MW-13	8260B



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 10:14	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 10:14	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 10:14	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 10:14	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 10:14	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 10:14	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 10:14	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 10:14	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 10:14	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 10:14	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 10:14	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 10:14	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 10:14	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 10:14	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 10:14	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 10:14	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 10:14	WG922002	
1,1-Dichloroethane	0.00553		0.00500	1	11/04/2016 10:14	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 10:14	WG922002	
1,1-Dichloroethene	0.0717		0.00500	1	11/04/2016 10:14	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 10:14	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 10:14	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 10:14	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 10:14	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 10:14	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 19:21	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 10:14	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 10:14	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 10:14	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 10:14	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 10:14	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 10:14	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 10:14	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	
Styrene	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 10:14	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 10:14	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 10:14	WG922002	
Toluene	ND		0.00500	1	11/04/2016 10:14	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 10:14	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 10:14	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	0.106		0.00500	1	11/04/2016 10:14	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 10:14	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 10:14	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 10:14	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 10:14	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 10:14	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 10:14	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 10:14	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 10:14	<a href="#">WG922002</a>	
(S) Toluene-d8	103		90.0-115		11/04/2016 10:14	<a href="#">WG922002</a>	
(S) Toluene-d8	99.2		90.0-115		11/08/2016 19:21	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	93.0		79.0-121		11/08/2016 19:21	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	97.7		79.0-121		11/04/2016 10:14	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	100		80.1-120		11/04/2016 10:14	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 19:21	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 10:38	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 10:38	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 10:38	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 10:38	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 10:38	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 10:38	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 10:38	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 10:38	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 10:38	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 10:38	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 10:38	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 10:38	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 10:38	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 10:38	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 10:38	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 10:38	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 10:38	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 10:38	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 10:38	WG922002	
1,1-Dichloroethene	ND		0.00500	1	11/04/2016 10:38	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 10:38	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 10:38	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 10:38	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 10:38	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 10:38	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 17:52	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 10:38	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 10:38	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 10:38	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 10:38	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 10:38	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 10:38	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 10:38	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	
Styrene	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 10:38	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 10:38	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 10:38	WG922002	
Toluene	ND		0.00500	1	11/04/2016 10:38	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 10:38	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 10:38	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	0.0410		0.00500	1	11/04/2016 10:38	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 10:38	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 10:38	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 10:38	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 10:38	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 10:38	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 10:38	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 10:38	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 10:38	<a href="#">WG922002</a>	
(S) Toluene-d8	103		90.0-115		11/04/2016 10:38	<a href="#">WG922002</a>	
(S) Toluene-d8	99.9		90.0-115		11/08/2016 17:52	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	94.7		79.0-121		11/08/2016 17:52	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	97.1		79.0-121		11/04/2016 10:38	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	102		80.1-120		11/04/2016 10:38	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 17:52	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 11:01	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 11:01	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 11:01	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 11:01	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 11:01	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 11:01	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 11:01	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 11:01	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 11:01	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 11:01	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 11:01	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 11:01	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 11:01	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 11:01	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 11:01	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 11:01	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 11:01	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 11:01	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 11:01	WG922002	
1,1-Dichloroethene	0.112		0.00500	1	11/04/2016 11:01	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 11:01	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 11:01	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 11:01	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 11:01	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 11:01	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 19:33	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 11:01	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 11:01	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 11:01	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 11:01	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 11:01	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 11:01	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 11:01	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	
Styrene	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 11:01	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 11:01	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 11:01	WG922002	
Toluene	ND		0.00500	1	11/04/2016 11:01	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 11:01	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 11:01	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	0.136		0.00500	1	11/04/2016 11:01	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 11:01	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 11:01	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 11:01	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 11:01	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 11:01	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 11:01	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 11:01	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 11:01	<a href="#">WG922002</a>	
(S) Toluene-d8	102		90.0-115		11/04/2016 11:01	<a href="#">WG922002</a>	
(S) Toluene-d8	99.8		90.0-115		11/08/2016 19:33	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	94.4		79.0-121		11/08/2016 19:33	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	98.1		79.0-121		11/04/2016 11:01	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	100		80.1-120		11/04/2016 11:01	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 19:33	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 11:25	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 11:25	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 11:25	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 11:25	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 11:25	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 11:25	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 11:25	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 11:25	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 11:25	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 11:25	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 11:25	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 11:25	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 11:25	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 11:25	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 11:25	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 11:25	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 11:25	WG922002	
1,1-Dichloroethane	0.00755		0.00500	1	11/04/2016 11:25	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 11:25	WG922002	
1,1-Dichloroethene	0.0110		0.00500	1	11/04/2016 11:25	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 11:25	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 11:25	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 11:25	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 11:25	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 11:25	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 19:46	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 11:25	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 11:25	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 11:25	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 11:25	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 11:25	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 11:25	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 11:25	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	
Styrene	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 11:25	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 11:25	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 11:25	WG922002	
Toluene	ND		0.00500	1	11/04/2016 11:25	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 11:25	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 11:25	<a href="#">WG922002</a>	<sup>1</sup> Cp
1,1,1-Trichloroethane	0.00921		0.00500	1	11/04/2016 11:25	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 11:25	<a href="#">WG922002</a>	<sup>3</sup> Ss
Trichloroethene	ND		0.00500	1	11/04/2016 11:25	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 11:25	<a href="#">WG922002</a>	<sup>5</sup> Sr
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 11:25	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 11:25	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 11:25	<a href="#">WG922002</a>	<sup>8</sup> Al
Vinyl chloride	ND		0.00200	1	11/04/2016 11:25	<a href="#">WG922002</a>	<sup>9</sup> Sc
Xylenes, Total	ND		0.00300	1	11/04/2016 11:25	<a href="#">WG922002</a>	
(S) Toluene-d8	102		90.0-115		11/04/2016 11:25	<a href="#">WG922002</a>	
(S) Toluene-d8	100		90.0-115		11/08/2016 19:46	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	95.8		79.0-121		11/08/2016 19:46	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	98.9		79.0-121		11/04/2016 11:25	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	101		80.1-120		11/04/2016 11:25	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	112		80.1-120		11/08/2016 19:46	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 11:48	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 11:48	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 11:48	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 11:48	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 11:48	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 11:48	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 11:48	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 11:48	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 11:48	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 11:48	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 11:48	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 11:48	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 11:48	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 11:48	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 11:48	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 11:48	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 11:48	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 11:48	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 11:48	WG922002	
1,1-Dichloroethene	0.0359		0.00500	1	11/04/2016 11:48	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 11:48	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 11:48	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 11:48	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 11:48	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 11:48	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 18:05	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 11:48	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 11:48	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 11:48	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 11:48	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 11:48	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 11:48	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 11:48	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	
Styrene	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 11:48	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 11:48	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 11:48	WG922002	
Toluene	ND		0.00500	1	11/04/2016 11:48	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 11:48	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 11:48	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	0.0322		0.00500	1	11/04/2016 11:48	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 11:48	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 11:48	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 11:48	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 11:48	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 11:48	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 11:48	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 11:48	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 11:48	<a href="#">WG922002</a>	
(S) Toluene-d8	102		90.0-115		11/04/2016 11:48	<a href="#">WG922002</a>	
(S) Toluene-d8	99.8		90.0-115		11/08/2016 18:05	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	96.4		79.0-121		11/08/2016 18:05	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	98.6		79.0-121		11/04/2016 11:48	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	99.6		80.1-120		11/04/2016 11:48	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 18:05	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier <u>J3 J4</u>	RDL mg/l	Dilution 1	Analysis date / time 11/04/2016 12:12	Batch WG922002	1 Cp
Acetone	ND		0.0500	1	11/04/2016 12:12	WG922002	
Acrolein	ND	<u>J3 J4</u>	0.0500	1	11/04/2016 12:12	WG922002	
Acrylonitrile	ND		0.0100	1	11/04/2016 12:12	WG922002	
Benzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
Bromobenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
Bromodichloromethane	ND		0.00100	1	11/04/2016 12:12	WG922002	
Bromoform	ND		0.00100	1	11/04/2016 12:12	WG922002	
Bromomethane	ND		0.00500	1	11/04/2016 12:12	WG922002	
n-Butylbenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
sec-Butylbenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 12:12	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 12:12	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 12:12	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 12:12	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 12:12	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 12:12	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 12:12	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 12:12	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 12:12	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 12:12	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 12:12	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 12:12	WG922002	
1,1-Dichloroethene	ND		0.00500	1	11/04/2016 12:12	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 12:12	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 12:12	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 12:12	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 12:12	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 12:12	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 19:59	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 12:12	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 12:12	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 12:12	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 12:12	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 12:12	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 12:12	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 12:12	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	
Styrene	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 12:12	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 12:12	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 12:12	WG922002	
Toluene	ND		0.00500	1	11/04/2016 12:12	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 12:12	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 12:12	<a href="#">WG922002</a>	<sup>1</sup> Cp
1,1,1-Trichloroethane	ND		0.00500	1	11/04/2016 12:12	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 12:12	<a href="#">WG922002</a>	<sup>3</sup> Ss
Trichloroethene	ND		0.00500	1	11/04/2016 12:12	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 12:12	<a href="#">WG922002</a>	<sup>5</sup> Sr
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 12:12	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 12:12	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 12:12	<a href="#">WG922002</a>	<sup>8</sup> Al
Vinyl chloride	ND		0.00200	1	11/04/2016 12:12	<a href="#">WG922002</a>	<sup>9</sup> Sc
Xylenes, Total	ND		0.00300	1	11/04/2016 12:12	<a href="#">WG922002</a>	
(S) Toluene-d8	102		90.0-115		11/04/2016 12:12	<a href="#">WG922002</a>	
(S) Toluene-d8	99.5		90.0-115		11/08/2016 19:59	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	92.4		79.0-121		11/08/2016 19:59	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	98.2		79.0-121		11/04/2016 12:12	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	101		80.1-120		11/04/2016 12:12	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	109		80.1-120		11/08/2016 19:59	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 12:36	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 12:36	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 12:36	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 12:36	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 12:36	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 12:36	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 12:36	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 12:36	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 12:36	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 12:36	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 12:36	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 12:36	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 12:36	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 12:36	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 12:36	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 12:36	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 12:36	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 12:36	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 12:36	WG922002	
1,1-Dichloroethene	0.0267		0.00500	1	11/04/2016 12:36	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 12:36	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 12:36	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 12:36	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 12:36	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 12:36	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 20:12	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 12:36	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 12:36	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 12:36	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 12:36	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 12:36	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 12:36	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 12:36	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	
Styrene	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 12:36	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 12:36	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 12:36	WG922002	
Toluene	ND		0.00500	1	11/04/2016 12:36	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 12:36	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 12:36	<a href="#">WG922002</a>	<sup>1</sup> Cp
1,1,1-Trichloroethane	0.0281		0.00500	1	11/04/2016 12:36	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 12:36	<a href="#">WG922002</a>	<sup>3</sup> Ss
Trichloroethylene	ND		0.00500	1	11/04/2016 12:36	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 12:36	<a href="#">WG922002</a>	<sup>5</sup> Sr
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 12:36	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 12:36	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 12:36	<a href="#">WG922002</a>	<sup>8</sup> Al
Vinyl chloride	ND		0.00200	1	11/04/2016 12:36	<a href="#">WG922002</a>	<sup>9</sup> Sc
Xylenes, Total	ND		0.00300	1	11/04/2016 12:36	<a href="#">WG922002</a>	
(S) Toluene-d8	103		90.0-115		11/04/2016 12:36	<a href="#">WG922002</a>	
(S) Toluene-d8	100		90.0-115		11/08/2016 20:12	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	93.9		79.0-121		11/08/2016 20:12	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	98.6		79.0-121		11/04/2016 12:36	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	99.2		80.1-120		11/04/2016 12:36	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	110		80.1-120		11/08/2016 20:12	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 12:59	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 12:59	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 12:59	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 12:59	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 12:59	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 12:59	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 12:59	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 12:59	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 12:59	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 12:59	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 12:59	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 12:59	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 12:59	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 12:59	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 12:59	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 12:59	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 12:59	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 12:59	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 12:59	WG922002	
1,1-Dichloroethene	0.0414		0.00500	1	11/04/2016 12:59	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 12:59	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 12:59	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 12:59	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 12:59	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 12:59	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 20:24	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 12:59	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 12:59	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 12:59	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 12:59	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 12:59	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 12:59	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 12:59	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	
Styrene	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 12:59	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 12:59	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 12:59	WG922002	
Toluene	ND		0.00500	1	11/04/2016 12:59	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 12:59	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 12:59	<a href="#">WG922002</a>	
1,1,1-Trichloroethane	0.0403		0.00500	1	11/04/2016 12:59	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 12:59	<a href="#">WG922002</a>	
Trichloroethene	ND		0.00500	1	11/04/2016 12:59	<a href="#">WG922002</a>	
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 12:59	<a href="#">WG922002</a>	
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 12:59	<a href="#">WG922002</a>	
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 12:59	<a href="#">WG922002</a>	
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 12:59	<a href="#">WG922002</a>	
Vinyl chloride	ND		0.00200	1	11/04/2016 12:59	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 12:59	<a href="#">WG922002</a>	
(S) Toluene-d8	103		90.0-115		11/04/2016 12:59	<a href="#">WG922002</a>	
(S) Toluene-d8	100		90.0-115		11/08/2016 20:24	<a href="#">WG922002</a>	<sup>5</sup> Sr
(S) Dibromofluoromethane	94.2		79.0-121		11/08/2016 20:24	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	98.1		79.0-121		11/04/2016 12:59	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	98.5		80.1-120		11/04/2016 12:59	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	110		80.1-120		11/08/2016 20:24	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/02/2016 20:23	WG922005	<sup>1</sup> Cp
Acrolein	ND	J4	0.0500	1	11/02/2016 20:23	WG922005	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/02/2016 20:23	WG922005	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/02/2016 20:23	WG922005	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/02/2016 20:23	WG922005	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/02/2016 20:23	WG922005	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/02/2016 20:23	WG922005	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	
tert-Butylbenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	
Carbon tetrachloride	ND	J3	0.00500	1	11/02/2016 20:23	WG922005	
Chlorobenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	
Chlorodibromomethane	ND		0.00100	1	11/02/2016 20:23	WG922005	
Chloroethane	ND		0.00500	1	11/02/2016 20:23	WG922005	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/02/2016 20:23	WG922005	
Chloroform	ND		0.00500	1	11/02/2016 20:23	WG922005	
Chloromethane	ND		0.00250	1	11/02/2016 20:23	WG922005	
2-Chlorotoluene	ND		0.00100	1	11/02/2016 20:23	WG922005	
4-Chlorotoluene	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/02/2016 20:23	WG922005	
1,2-Dibromoethane	ND		0.00100	1	11/02/2016 20:23	WG922005	
Dibromomethane	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,2-Dichlorobenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,3-Dichlorobenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,4-Dichlorobenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	
Dichlorodifluoromethane	ND		0.00500	1	11/02/2016 20:23	WG922005	
1,1-Dichloroethane	0.0447		0.00500	1	11/02/2016 20:23	WG922005	
1,2-Dichloroethane	ND		0.00500	1	11/02/2016 20:23	WG922005	
1,1-Dichloroethene	0.0223		0.00500	1	11/02/2016 20:23	WG922005	
cis-1,2-Dichloroethene	ND		0.00500	1	11/02/2016 20:23	WG922005	
trans-1,2-Dichloroethene	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,2-Dichloropropane	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,1-Dichloropropene	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,3-Dichloropropane	ND	J4	0.00100	1	11/02/2016 20:23	WG922005	
cis-1,3-Dichloropropene	ND		0.00100	1	11/02/2016 20:23	WG922005	
trans-1,3-Dichloropropene	ND		0.00100	1	11/02/2016 20:23	WG922005	
2,2-Dichloropropane	ND		0.00100	1	11/02/2016 20:23	WG922005	
Di-isopropyl ether	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,4-Dioxane	ND		0.100	1	11/08/2016 20:37	WG922005	
Ethylbenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/02/2016 20:23	WG922005	
Isopropylbenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	
p-Isopropyltoluene	ND		0.00100	1	11/02/2016 20:23	WG922005	
2-Butanone (MEK)	ND		0.0100	1	11/02/2016 20:23	WG922005	
Methylene Chloride	ND		0.00500	1	11/02/2016 20:23	WG922005	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/02/2016 20:23	WG922005	
Methyl tert-butyl ether	ND		0.00100	1	11/02/2016 20:23	WG922005	
Naphthalene	ND	J4	0.00500	1	11/02/2016 20:23	WG922005	
n-Propylbenzene	ND		0.00100	1	11/02/2016 20:23	WG922005	
Styrene	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/02/2016 20:23	WG922005	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/02/2016 20:23	WG922005	
Tetrachloroethene	ND		0.00500	1	11/02/2016 20:23	WG922005	
Toluene	ND		0.00500	1	11/02/2016 20:23	WG922005	
1,2,3-Trichlorobenzene	ND	J4	0.00100	1	11/02/2016 20:23	WG922005	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/02/2016 20:23	<a href="#">WG922005</a>	
1,1,1-Trichloroethane	0.106		0.00500	1	11/02/2016 20:23	<a href="#">WG922005</a>	
1,1,2-Trichloroethane	0.00614		0.00500	1	11/02/2016 20:23	<a href="#">WG922005</a>	
Trichloroethene	ND		0.00500	1	11/02/2016 20:23	<a href="#">WG922005</a>	
Trichlorofluoromethane	ND		0.00500	1	11/02/2016 20:23	<a href="#">WG922005</a>	
1,2,3-Trichloropropane	ND		0.00250	1	11/02/2016 20:23	<a href="#">WG922005</a>	
1,2,4-Trimethylbenzene	ND		0.00100	1	11/02/2016 20:23	<a href="#">WG922005</a>	
1,3,5-Trimethylbenzene	ND		0.00100	1	11/02/2016 20:23	<a href="#">WG922005</a>	
Vinyl chloride	ND		0.00200	1	11/02/2016 20:23	<a href="#">WG922005</a>	
Xylenes, Total	ND		0.00300	1	11/02/2016 20:23	<a href="#">WG922005</a>	
(S) Toluene-d8	99.8		90.0-115		11/02/2016 20:23	<a href="#">WG922005</a>	
(S) Toluene-d8	100		90.0-115		11/08/2016 20:37	<a href="#">WG922005</a>	
(S) Dibromofluoromethane	94.7		79.0-121		11/08/2016 20:37	<a href="#">WG922005</a>	
(S) Dibromofluoromethane	86.9		79.0-121		11/02/2016 20:23	<a href="#">WG922005</a>	
(S) 4-Bromofluorobenzene	93.7		80.1-120		11/02/2016 20:23	<a href="#">WG922005</a>	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 20:37	<a href="#">WG922005</a>	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/02/2016 20:44	WG922005	<sup>1</sup> Cp
Acrolein	ND	J4	0.0500	1	11/02/2016 20:44	WG922005	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/02/2016 20:44	WG922005	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/02/2016 20:44	WG922005	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/02/2016 20:44	WG922005	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/02/2016 20:44	WG922005	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/02/2016 20:44	WG922005	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
tert-Butylbenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
Carbon tetrachloride	ND	J3	0.00500	1	11/02/2016 20:44	WG922005	
Chlorobenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
Chlorodibromomethane	ND		0.00100	1	11/02/2016 20:44	WG922005	
Chloroethane	ND		0.00500	1	11/02/2016 20:44	WG922005	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/02/2016 20:44	WG922005	
Chloroform	ND		0.00500	1	11/02/2016 20:44	WG922005	
Chloromethane	ND		0.00250	1	11/02/2016 20:44	WG922005	
2-Chlorotoluene	ND		0.00100	1	11/02/2016 20:44	WG922005	
4-Chlorotoluene	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/02/2016 20:44	WG922005	
1,2-Dibromoethane	ND		0.00100	1	11/02/2016 20:44	WG922005	
Dibromomethane	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,2-Dichlorobenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,3-Dichlorobenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,4-Dichlorobenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
Dichlorodifluoromethane	ND		0.00500	1	11/02/2016 20:44	WG922005	
1,1-Dichloroethane	0.145		0.00500	1	11/02/2016 20:44	WG922005	
1,2-Dichloroethane	ND		0.00500	1	11/02/2016 20:44	WG922005	
1,1-Dichloroethene	0.326		0.0500	50	11/04/2016 09:34	WG922005	
cis-1,2-Dichloroethene	ND		0.00500	1	11/02/2016 20:44	WG922005	
trans-1,2-Dichloroethene	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,2-Dichloropropane	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,1-Dichloropropene	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,3-Dichloropropane	ND	J4	0.00100	1	11/02/2016 20:44	WG922005	
cis-1,3-Dichloropropene	ND		0.00100	1	11/02/2016 20:44	WG922005	
trans-1,3-Dichloropropene	ND		0.00100	1	11/02/2016 20:44	WG922005	
2,2-Dichloropropane	ND		0.00100	1	11/02/2016 20:44	WG922005	
Di-isopropyl ether	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,4-Dioxane	ND		1.00	10	11/08/2016 20:50	WG922005	
Ethylbenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/02/2016 20:44	WG922005	
Isopropylbenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
p-Isopropyltoluene	ND		0.00100	1	11/02/2016 20:44	WG922005	
2-Butanone (MEK)	ND		0.0100	1	11/02/2016 20:44	WG922005	
Methylene Chloride	ND		0.00500	1	11/02/2016 20:44	WG922005	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/02/2016 20:44	WG922005	
Methyl tert-butyl ether	ND		0.00100	1	11/02/2016 20:44	WG922005	
Naphthalene	ND	J4	0.00500	1	11/02/2016 20:44	WG922005	
n-Propylbenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
Styrene	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,1,2-Tetrachloroethane	0.00121		0.00100	1	11/02/2016 20:44	WG922005	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/02/2016 20:44	WG922005	
Tetrachloroethene	0.0120		0.00500	1	11/02/2016 20:44	WG922005	
Toluene	ND		0.00500	1	11/02/2016 20:44	WG922005	
1,2,3-Trichlorobenzene	ND	J4	0.00100	1	11/02/2016 20:44	WG922005	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,1,1-Trichloroethane	0.978		0.0500	50	11/04/2016 09:34	WG922005	
1,1,2-Trichloroethane	ND		0.00500	1	11/02/2016 20:44	WG922005	
Trichloroethylene	0.0187		0.00500	1	11/02/2016 20:44	WG922005	
Trichlorofluoromethane	ND		0.00500	1	11/02/2016 20:44	WG922005	
1,2,3-Trichloropropane	ND		0.00250	1	11/02/2016 20:44	WG922005	
1,2,4-Trimethylbenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
1,3,5-Trimethylbenzene	ND		0.00100	1	11/02/2016 20:44	WG922005	
Vinyl chloride	ND		0.00200	1	11/02/2016 20:44	WG922005	
Xylenes, Total	ND		0.00300	1	11/02/2016 20:44	WG922005	
(S) Toluene-d8	103		90.0-115		11/02/2016 20:44	WG922005	
(S) Toluene-d8	101		90.0-115		11/04/2016 09:34	WG922005	
(S) Toluene-d8	101		90.0-115		11/08/2016 20:50	WG922005	
(S) Dibromofluoromethane	94.3		79.0-121		11/08/2016 20:50	WG922005	
(S) Dibromofluoromethane	81.9		79.0-121		11/04/2016 09:34	WG922005	
(S) Dibromofluoromethane	89.6		79.0-121		11/02/2016 20:44	WG922005	
(S) 4-Bromofluorobenzene	95.4		80.1-120		11/02/2016 20:44	WG922005	
(S) 4-Bromofluorobenzene	98.0		80.1-120		11/04/2016 09:34	WG922005	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 20:50	WG922005	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

L869134-01,02,03,04,05,06,07,08

## Method Blank (MB)

(MB) R3175950-1 11/04/16 04:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l	
Acetone	U		0.0100	0.0500	<sup>1</sup> Cp
Acrolein	U		0.00887	0.0500	<sup>2</sup> Tc
Acrylonitrile	U		0.00187	0.0100	<sup>3</sup> Ss
Benzene	U		0.000331	0.00100	<sup>4</sup> Cn
Bromobenzene	U		0.000352	0.00100	<sup>5</sup> Sr
Bromodichloromethane	U		0.000380	0.00100	<sup>6</sup> Qc
Bromoform	U		0.000469	0.00100	<sup>7</sup> Gl
Bromomethane	U		0.000866	0.00500	<sup>8</sup> Al
n-Butylbenzene	U		0.000361	0.00100	<sup>9</sup> Sc
sec-Butylbenzene	U		0.000365	0.00100	
tert-Butylbenzene	U		0.000399	0.00100	
Carbon tetrachloride	U		0.000379	0.00100	
Chlorobenzene	U		0.000348	0.00100	
Chlorodibromomethane	U		0.000327	0.00100	
Chloroethane	U		0.000453	0.00500	
2-Chloroethyl vinyl ether	U		0.00301	0.0500	
Chloroform	U		0.000324	0.00500	
Chloromethane	U		0.000276	0.00250	
2-Chlorotoluene	U		0.000375	0.00100	
4-Chlorotoluene	U		0.000351	0.00100	
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	
1,2-Dibromoethane	U		0.000381	0.00100	
Dibromomethane	U		0.000346	0.00100	
1,2-Dichlorobenzene	U		0.000349	0.00100	
1,3-Dichlorobenzene	U		0.000220	0.00100	
1,4-Dichlorobenzene	U		0.000274	0.00100	
Dichlorodifluoromethane	U		0.000551	0.00500	
1,1-Dichloroethane	U		0.000259	0.00100	
1,2-Dichloroethane	U		0.000361	0.00100	
1,1-Dichloroethene	U		0.000398	0.00100	
cis-1,2-Dichloroethene	U		0.000260	0.00100	
trans-1,2-Dichloroethene	U		0.000396	0.00100	
1,2-Dichloropropane	U		0.000306	0.00100	
1,1-Dichloropropene	U		0.000352	0.00100	
1,3-Dichloropropane	U		0.000366	0.00100	
cis-1,3-Dichloropropene	U		0.000418	0.00100	
trans-1,3-Dichloropropene	U		0.000419	0.00100	
2,2-Dichloropropane	U		0.000321	0.00100	
Di-isopropyl ether	U		0.000320	0.00100	
Ethylbenzene	U		0.000384	0.00100	

L869134-01,02,03,04,05,06,07,08

## Method Blank (MB)

(MB) R3175950-1 11/04/16 04:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l										
Hexachloro-1,3-butadiene	0.000480	J	0.000256	0.00100										
Isopropylbenzene	U		0.000326	0.00100										
p-Isopropyltoluene	U		0.000350	0.00100										
2-Butanone (MEK)	U		0.00393	0.0100										
Methylene Chloride	U		0.00100	0.00500										
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100										
Methyl tert-butyl ether	U		0.000367	0.00100										
Naphthalene	U		0.00100	0.00500										
n-Propylbenzene	U		0.000349	0.00100										
Styrene	U		0.000307	0.00100										
1,1,2-Tetrachloroethane	U		0.000385	0.00100										
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100										
Tetrachloroethene	U		0.000372	0.00100										
Toluene	U		0.000780	0.00500										
1,2,3-Trichlorobenzene	U		0.000230	0.00100										
1,2,4-Trichlorobenzene	U		0.000355	0.00100										
1,1,1-Trichloroethane	U		0.000319	0.00100										
1,1,2-Trichloroethane	U		0.000383	0.00100										
Trichloroethene	U		0.000398	0.00100										
Trichlorofluoromethane	U		0.00120	0.00500										
1,2,3-Trichloropropane	U		0.000807	0.00250										
1,2,4-Trimethylbenzene	U		0.000373	0.00100										
1,3,5-Trimethylbenzene	U		0.000387	0.00100										
Vinyl chloride	U		0.000259	0.00100										
Xylenes, Total	U		0.00106	0.00300										
1,4-Dioxane	U		0.0360	0.100										
(S) Toluene-d8	102			90.0-115										
(S) Dibromofluoromethane	95.0			79.0-121										
(S) 4-Bromofluorobenzene	100			80.1-120										

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175950-2 11/04/16 14:04 • (LCSD) R3175950-3 11/04/16 14:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Acetone	0.125	0.208	0.214	166	171	28.7-175			2.98	20.9
Acrolein	0.125	0.0459	0.0374	36.8	29.9	40.4-172	J4	J3 J4	20.6	20
Acrylonitrile	0.125	0.112	0.109	89.5	87.0	58.2-145			2.78	20
Benzene	0.0250	0.0213	0.0214	85.4	85.5	73.0-122			0.100	20



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175950-2 11/04/16 14:04 • (LCSD) R3175950-3 11/04/16 14:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromobenzene	0.0250	0.0210	0.0212	83.8	84.6	81.5-115			0.920	20
Bromodichloromethane	0.0250	0.0208	0.0209	83.0	83.7	75.5-121			0.820	20
Bromoform	0.0250	0.0225	0.0229	89.9	91.5	71.5-131			1.73	20
Bromomethane	0.0250	0.0164	0.0179	65.5	71.5	22.4-187			8.68	20
n-Butylbenzene	0.0250	0.0200	0.0199	79.8	79.6	75.9-134			0.260	20
sec-Butylbenzene	0.0250	0.0217	0.0217	86.9	86.8	80.6-126			0.0400	20
tert-Butylbenzene	0.0250	0.0216	0.0218	86.6	87.0	79.3-127			0.530	20
Carbon tetrachloride	0.0250	0.0195	0.0198	77.8	79.2	70.9-129			1.74	20
Chlorobenzene	0.0250	0.0221	0.0225	88.2	90.0	79.7-122			2.00	20
Chlorodibromomethane	0.0250	0.0224	0.0229	89.7	91.5	78.2-124			1.94	20
Chloroethane	0.0250	0.0155	0.0162	61.8	64.9	41.2-153			4.89	20
2-Chloroethyl vinyl ether	0.125	0.0997	0.101	79.7	80.8	23.4-162			1.29	23.5
Chloroform	0.0250	0.0212	0.0213	84.8	85.1	73.2-125			0.370	20
Chloromethane	0.0250	0.0224	0.0219	89.7	87.6	55.8-134			2.27	20
2-Chlorotoluene	0.0250	0.0222	0.0223	88.7	89.4	76.4-125			0.720	20
4-Chlorotoluene	0.0250	0.0220	0.0220	87.9	88.1	81.5-121			0.170	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0207	0.0203	82.9	81.2	64.8-131			2.13	20
1,2-Dibromoethane	0.0250	0.0222	0.0225	89.0	90.1	79.8-122			1.23	20
Dibromomethane	0.0250	0.0218	0.0222	87.3	88.8	79.5-118			1.65	20
1,2-Dichlorobenzene	0.0250	0.0218	0.0217	87.1	86.9	84.7-118			0.230	20
1,3-Dichlorobenzene	0.0250	0.0232	0.0233	92.9	93.4	77.6-127			0.520	20
1,4-Dichlorobenzene	0.0250	0.0208	0.0211	83.1	84.4	82.2-114			1.54	20
Dichlorodifluoromethane	0.0250	0.0207	0.0205	82.9	81.8	56.0-134			1.31	20
1,1-Dichloroethane	0.0250	0.0211	0.0210	84.6	84.1	71.7-127			0.530	20
1,2-Dichloroethane	0.0250	0.0200	0.0201	80.1	80.6	65.3-126			0.600	20
1,1-Dichloroethene	0.0250	0.0222	0.0220	88.6	88.0	59.9-137			0.680	20
cis-1,2-Dichloroethene	0.0250	0.0219	0.0217	87.6	86.9	77.3-122			0.710	20
trans-1,2-Dichloroethene	0.0250	0.0213	0.0212	85.1	84.9	72.6-125			0.240	20
1,2-Dichloropropane	0.0250	0.0219	0.0220	87.6	88.0	77.4-125			0.400	20
1,1-Dichloropropene	0.0250	0.0209	0.0207	83.6	82.7	72.5-127			1.04	20
1,3-Dichloropropane	0.0250	0.0226	0.0227	90.4	90.8	80.6-115			0.430	20
cis-1,3-Dichloropropene	0.0250	0.0211	0.0215	84.6	86.1	77.7-124			1.76	20
trans-1,3-Dichloropropene	0.0250	0.0206	0.0212	82.5	85.0	73.5-127			2.94	20
2,2-Dichloropropane	0.0250	0.0187	0.0191	74.7	76.2	61.3-134			1.96	20
Di-isopropyl ether	0.0250	0.0209	0.0208	83.6	83.3	65.1-135			0.370	20
Ethylbenzene	0.0250	0.0216	0.0220	86.6	87.8	80.9-121			1.41	20
Hexachloro-1,3-butadiene	0.0250	0.0213	0.0203	85.0	81.2	73.7-133			4.57	20
Isopropylbenzene	0.0250	0.0215	0.0218	86.1	87.1	81.6-124			1.19	20
p-Isopropyltoluene	0.0250	0.0220	0.0219	87.9	87.5	77.6-129			0.440	20
2-Butanone (MEK)	0.125	0.110	0.119	87.9	95.0	46.4-155			7.72	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175950-2 11/04/16 14:04 • (LCSD) R3175950-3 11/04/16 14:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Methylene Chloride	0.0250	0.0214	0.0208	85.4	83.4	69.5-120			2.44	20
4-Methyl-2-pentanone (MIBK)	0.125	0.104	0.103	82.9	82.8	63.3-138			0.200	20
Methyl tert-butyl ether	0.0250	0.0216	0.0215	86.4	86.1	70.1-125			0.340	20
Naphthalene	0.0250	0.0221	0.0208	88.2	83.3	69.7-134			5.69	20
n-Propylbenzene	0.0250	0.0219	0.0220	87.7	88.2	81.9-122			0.560	20
Styrene	0.0250	0.0219	0.0223	87.5	89.2	79.9-124			1.95	20
1,1,2,2-Tetrachloroethane	0.0250	0.0219	0.0225	87.5	90.1	78.5-125			2.96	20
1,1,2,2-Tetrachloroethane	0.0250	0.0228	0.0225	91.2	90.0	79.3-123			1.32	20
Tetrachloroethene	0.0250	0.0213	0.0221	85.3	88.5	73.5-130			3.69	20
Toluene	0.0250	0.0213	0.0217	85.0	86.8	77.9-116			2.11	20
1,2,3-Trichlorobenzene	0.0250	0.0228	0.0214	91.0	85.5	75.7-134			6.31	20
1,2,4-Trichlorobenzene	0.0250	0.0229	0.0217	91.6	86.9	76.1-136			5.20	20
1,1,1-Trichloroethane	0.0250	0.0194	0.0199	77.7	79.7	71.1-129			2.59	20
1,1,2-Trichloroethane	0.0250	0.0230	0.0230	92.0	92.0	81.6-120			0.0400	20
Trichloroethene	0.0250	0.0219	0.0224	87.8	89.8	79.5-121			2.27	20
Trichlorofluoromethane	0.0250	0.0223	0.0222	89.4	88.7	49.1-157			0.790	20
1,2,3-Trichloropropane	0.0250	0.0216	0.0216	86.5	86.2	74.9-124			0.400	20
1,2,4-Trimethylbenzene	0.0250	0.0219	0.0218	87.7	87.2	79.0-122			0.490	20
1,3,5-Trimethylbenzene	0.0250	0.0215	0.0216	86.2	86.5	81.0-123			0.420	20
Vinyl chloride	0.0250	0.0217	0.0217	86.8	87.0	61.5-134			0.150	20
Xylenes, Total	0.0750	0.0643	0.0657	85.8	87.6	79.2-122			2.09	20
(S) Toluene-d8				102	103	90.0-115				
(S) Dibromofluoromethane				98.5	98.3	79.0-121				
(S) 4-Bromofluorobenzene				99.5	99.9	80.1-120				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc



## Method Blank (MB)

(MB) R3175719-1 11/02/16 17:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l	
Acetone	U		0.0100	0.0500	<sup>1</sup> Cp
Acrolein	U		0.00887	0.0500	<sup>2</sup> Tc
Acrylonitrile	U		0.00187	0.0100	<sup>3</sup> Ss
Benzene	U		0.000331	0.00100	<sup>4</sup> Cn
Bromobenzene	U		0.000352	0.00100	<sup>5</sup> Sr
Bromodichloromethane	U		0.000380	0.00100	<sup>6</sup> Qc
Bromoform	U		0.000469	0.00100	<sup>7</sup> Gl
Bromomethane	U		0.000866	0.00500	<sup>8</sup> Al
n-Butylbenzene	U		0.000361	0.00100	<sup>9</sup> Sc
sec-Butylbenzene	U		0.000365	0.00100	
tert-Butylbenzene	U		0.000399	0.00100	
Carbon tetrachloride	U		0.000379	0.00100	
Chlorobenzene	U		0.000348	0.00100	
Chlorodibromomethane	U		0.000327	0.00100	
Chloroethane	U		0.000453	0.00500	
2-Chloroethyl vinyl ether	U		0.00301	0.0500	
Chloroform	U		0.000324	0.00500	
Chloromethane	U		0.000276	0.00250	
2-Chlorotoluene	U		0.000375	0.00100	
4-Chlorotoluene	U		0.000351	0.00100	
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	
1,2-Dibromoethane	U		0.000381	0.00100	
Dibromomethane	U		0.000346	0.00100	
1,2-Dichlorobenzene	U		0.000349	0.00100	
1,3-Dichlorobenzene	U		0.000220	0.00100	
1,4-Dichlorobenzene	U		0.000274	0.00100	
Dichlorodifluoromethane	U		0.000551	0.00500	
1,1-Dichloroethane	U		0.000259	0.00100	
1,2-Dichloroethane	U		0.000361	0.00100	
1,1-Dichloroethene	U		0.000398	0.00100	
cis-1,2-Dichloroethene	U		0.000260	0.00100	
trans-1,2-Dichloroethene	U		0.000396	0.00100	
1,2-Dichloropropane	U		0.000306	0.00100	
1,1-Dichloropropene	U		0.000352	0.00100	
1,3-Dichloropropane	U		0.000366	0.00100	
cis-1,3-Dichloropropene	U		0.000418	0.00100	
trans-1,3-Dichloropropene	U		0.000419	0.00100	
2,2-Dichloropropane	U		0.000321	0.00100	
Di-isopropyl ether	U		0.000320	0.00100	
Ethylbenzene	U		0.000384	0.00100	

[L869134-09.10](#)

## Method Blank (MB)

(MB) R3175719-1 11/02/16 17:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l	1 <sup>1</sup> Cp
Hexachloro-1,3-butadiene	U		0.000256	0.00100	
Isopropylbenzene	U		0.000326	0.00100	
p-Isopropyltoluene	U		0.000350	0.00100	
2-Butanone (MEK)	U		0.00393	0.0100	
Methylene Chloride	U		0.00100	0.00500	
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	
Methyl tert-butyl ether	U		0.000367	0.00100	
Naphthalene	U		0.00100	0.00500	
n-Propylbenzene	U		0.000349	0.00100	
Styrene	U		0.000307	0.00100	
1,1,2-Tetrachloroethane	U		0.000385	0.00100	
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	
Tetrachloroethene	U		0.000372	0.00100	
Toluene	U		0.000780	0.00500	
1,2,3-Trichlorobenzene	U		0.000230	0.00100	
1,2,4-Trichlorobenzene	U		0.000355	0.00100	
1,1,1-Trichloroethane	U		0.000319	0.00100	
1,1,2-Trichloroethane	U		0.000383	0.00100	
Trichloroethene	U		0.000398	0.00100	
Trichlorofluoromethane	U		0.00120	0.00500	
1,2,3-Trichloropropane	U		0.000807	0.00250	
1,2,4-Trimethylbenzene	U		0.000373	0.00100	
1,3,5-Trimethylbenzene	U		0.000387	0.00100	
Vinyl chloride	U		0.000259	0.00100	
Xylenes, Total	U		0.00106	0.00300	
1,4-Dioxane	U		0.0360	0.100	
(S) Toluene-d8	102			90.0-115	
(S) Dibromofluoromethane	86.9			79.0-121	
(S) 4-Bromofluorobenzene	95.7			80.1-120	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175719-2 11/02/16 18:14 • (LCSD) R3175719-3 11/02/16 18:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.151	0.151	121	121	28.7-175			0.0200	20.9
Acrolein	0.125	0.308	0.300	246	240	40.4-172	J4	J4	2.50	20
Acrylonitrile	0.125	0.108	0.119	86.1	95.3	58.2-145			10.1	20
Benzene	0.0250	0.0227	0.0240	90.9	96.0	73.0-122			5.45	20



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175719-2 11/02/16 18:14 • (LCSD) R3175719-3 11/02/16 18:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromobenzene	0.0250	0.0262	0.0278	105	111	81.5-115			5.85	20
Bromodichloromethane	0.0250	0.0242	0.0250	96.7	100	75.5-121			3.37	20
Bromoform	0.0250	0.0257	0.0284	103	113	71.5-131			9.84	20
Bromomethane	0.0250	0.0237	0.0249	94.9	99.6	22.4-187			4.81	20
n-Butylbenzene	0.0250	0.0233	0.0247	93.2	98.7	75.9-134			5.73	20
sec-Butylbenzene	0.0250	0.0250	0.0265	100	106	80.6-126			5.75	20
tert-Butylbenzene	0.0250	0.0260	0.0274	104	110	79.3-127			5.18	20
Carbon tetrachloride	0.0250	0.0180	0.0230	71.9	92.0	70.9-129	J3		24.5	20
Chlorobenzene	0.0250	0.0278	0.0292	111	117	79.7-122			4.97	20
Chlorodibromomethane	0.0250	0.0278	0.0300	111	120	78.2-124			7.46	20
Chloroethane	0.0250	0.0240	0.0259	95.8	104	41.2-153			7.86	20
2-Chloroethyl vinyl ether	0.125	0.125	0.136	100	109	23.4-162			8.41	23.5
Chloroform	0.0250	0.0223	0.0231	89.1	92.2	73.2-125			3.42	20
Chloromethane	0.0250	0.0255	0.0267	102	107	55.8-134			4.76	20
2-Chlorotoluene	0.0250	0.0260	0.0275	104	110	76.4-125			5.41	20
4-Chlorotoluene	0.0250	0.0261	0.0274	105	109	81.5-121			4.53	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0211	0.0236	84.3	94.4	64.8-131			11.3	20
1,2-Dibromoethane	0.0250	0.0254	0.0272	102	109	79.8-122			6.74	20
Dibromomethane	0.0250	0.0259	0.0266	104	107	79.5-118			2.63	20
1,2-Dichlorobenzene	0.0250	0.0254	0.0268	102	107	84.7-118			5.29	20
1,3-Dichlorobenzene	0.0250	0.0257	0.0268	103	107	77.6-127			4.15	20
1,4-Dichlorobenzene	0.0250	0.0260	0.0273	104	109	82.2-114			4.87	20
Dichlorodifluoromethane	0.0250	0.0272	0.0298	109	119	56.0-134			9.38	20
1,1-Dichloroethane	0.0250	0.0237	0.0251	94.8	100	71.7-127			5.71	20
1,2-Dichloroethane	0.0250	0.0218	0.0228	87.2	91.3	65.3-126			4.60	20
1,1-Dichloroethene	0.0250	0.0245	0.0260	97.9	104	59.9-137			6.07	20
cis-1,2-Dichloroethene	0.0250	0.0225	0.0242	89.9	96.6	77.3-122			7.15	20
trans-1,2-Dichloroethene	0.0250	0.0231	0.0251	92.4	101	72.6-125			8.44	20
1,2-Dichloropropane	0.0250	0.0279	0.0294	111	118	77.4-125			5.57	20
1,1-Dichloropropene	0.0250	0.0253	0.0275	101	110	72.5-127			8.36	20
1,3-Dichloropropane	0.0250	0.0287	0.0297	115	119	80.6-115	J4		3.65	20
cis-1,3-Dichloropropene	0.0250	0.0254	0.0264	102	106	77.7-124			3.82	20
trans-1,3-Dichloropropene	0.0250	0.0251	0.0259	101	104	73.5-127			3.11	20
2,2-Dichloropropane	0.0250	0.0214	0.0228	85.4	91.1	61.3-134			6.45	20
Di-isopropyl ether	0.0250	0.0235	0.0244	94.0	97.4	65.1-135			3.64	20
Ethylbenzene	0.0250	0.0270	0.0291	108	116	80.9-121			7.48	20
Hexachloro-1,3-butadiene	0.0250	0.0184	0.0186	73.7	74.5	73.7-133			1.14	20
Isopropylbenzene	0.0250	0.0266	0.0287	106	115	81.6-124			7.67	20
p-Isopropyltoluene	0.0250	0.0266	0.0278	106	111	77.6-129			4.61	20
2-Butanone (MEK)	0.125	0.102	0.116	81.7	93.0	46.4-155			12.9	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175719-2 11/02/16 18:14 • (LCSD) R3175719-3 11/02/16 18:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits	
Methylene Chloride	0.0250	0.0217	0.0228	86.6	91.3	69.5-120			5.22	20	<sup>1</sup> Cp
4-Methyl-2-pentanone (MIBK)	0.125	0.116	0.125	92.8	100	63.3-138			7.80	20	<sup>2</sup> Tc
Methyl tert-butyl ether	0.0250	0.0197	0.0204	78.8	81.7	70.1-125			3.54	20	<sup>3</sup> Ss
Naphthalene	0.0250	0.0172	0.0187	68.6	74.7	69.7-134	<u>J4</u>		8.49	20	<sup>4</sup> Cn
n-Propylbenzene	0.0250	0.0270	0.0291	108	116	81.9-122			7.51	20	<sup>5</sup> Sr
Styrene	0.0250	0.0271	0.0288	108	115	79.9-124			6.00	20	<sup>6</sup> Qc
1,1,2-Tetrachloroethane	0.0250	0.0265	0.0286	106	114	78.5-125			7.52	20	<sup>7</sup> Gl
1,1,2,2-Tetrachloroethane	0.0250	0.0244	0.0262	97.7	105	79.3-123			6.82	20	<sup>8</sup> Al
Tetrachloroethene	0.0250	0.0302	0.0320	121	128	73.5-130			5.94	20	<sup>9</sup> Sc
Toluene	0.0250	0.0257	0.0270	103	108	77.9-116			5.01	20	
1,2,3-Trichlorobenzene	0.0250	0.0167	0.0174	66.8	69.5	75.7-134	<u>J4</u>	<u>J4</u>	4.09	20	
1,2,4-Trichlorobenzene	0.0250	0.0202	0.0200	80.6	80.1	76.1-136			0.670	20	
1,1,1-Trichloroethane	0.0250	0.0228	0.0247	91.0	98.7	71.1-129			8.04	20	
1,1,2-Trichloroethane	0.0250	0.0262	0.0273	105	109	81.6-120			3.97	20	
Trichloroethene	0.0250	0.0268	0.0281	107	112	79.5-121			4.61	20	
Trichlorofluoromethane	0.0250	0.0232	0.0255	92.8	102	49.1-157			9.58	20	
1,2,3-Trichloropropane	0.0250	0.0250	0.0272	100	109	74.9-124			8.56	20	
1,2,4-Trimethylbenzene	0.0250	0.0254	0.0265	102	106	79.0-122			4.43	20	
1,3,5-Trimethylbenzene	0.0250	0.0251	0.0271	100	108	81.0-123			7.46	20	
Vinyl chloride	0.0250	0.0248	0.0272	99.4	109	61.5-134			8.89	20	
Xylenes, Total	0.0750	0.0801	0.0850	107	113	79.2-122			5.91	20	
(S) Toluene-d8				103	102	90.0-115					
(S) Dibromofluoromethane				85.2	83.2	79.0-121					
(S) 4-Bromofluorobenzene				98.0	98.3	80.1-120					



## Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

## Qualifier      Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey—NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio—VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

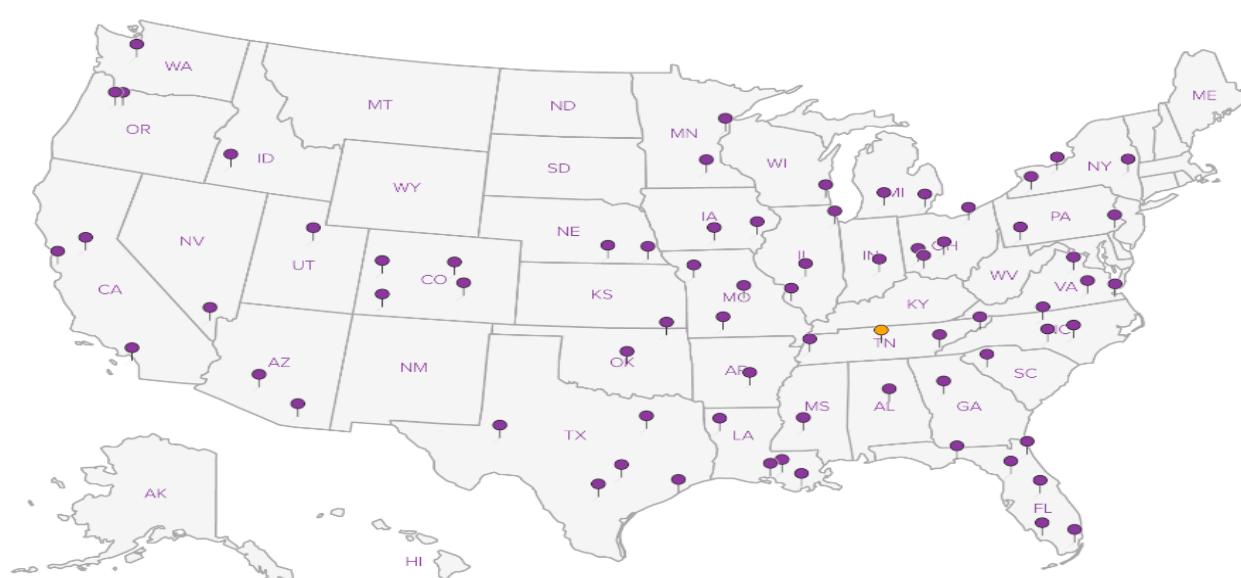
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

Company Name/Address <b>S&amp;ME Inc Kennesaw GA</b> 3380 Town Point Pkwy Suite 140 Kennesaw, GA 30144		Billing Information: <b>S&amp;ME Inc Kennesaw GA</b> 3380 Town Point Pkwy Suite 140 Kennesaw, GA 30144		Analysis / Container / Preservative		Chain of Custody Page <u>1</u> of <u>1</u>	
Report to: <i>Peter Fleury</i>		Email To: <i>p.fleury@smeinc.com</i>				 <b>ESC</b> LAB SCIENCES THE LAB OF CHOICE 12005 LeBaron Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-267-5859 Fax: 615-758-5859 L# <b>36A134</b> <b>E162</b>	
Project <b>Gainesville DOT</b> Description:		City/State Collected: <i>Gainesville, GA</i>					
Phone: (770)919-0969 Fax: (770)919-2360	Client Project # <b>4468-14-073A</b>	Lab Project #					
Collected by (print): <i>Taylor Gobbo</i>	Site/Facility ID #	P.O. # <b>4468-14-073A</b>					
Collected by (signature): <i>Taylor Gobbo</i>	Rush? (Lab MUST Be Notified)  <input type="checkbox"/> Same Day      200% <input type="checkbox"/> Next Day      100% <input type="checkbox"/> Two Day      50% <input type="checkbox"/> Three Day      25%	Date Results Needed					
Immediately Packed on Ice N		Email? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	FAX? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	No. cf	Entered		
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Entered	
MW-1	Grab	GW		10-24-16	1455	2 X	01
MW-2	Grab	GW		10-25-16	1218	2 X	02
MW-4	Grab	GW		10-24-16	1130	2 X	03
MW-6	Grab	GW		10-26-16	1130	2 X	04
MW-7	Grab	GW		10-25-16	1840	2 X	05
MW-8	Grab	GW		10-26-16	1200	2 X	06
MW-9R	Grab	GW		10-26-16	1203	2 X	07
MW-11	Grab	GW		10-26-16	1440	2 X	08
MW-12	Grab	GW		10-24-16	1425	2 X	09
MW-13	Grab	GW		10-24-16	1640	2 X	10
* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____						pH _____	Temp _____
Remarks:						Flow _____	Other _____
Relinquished by: (Signature): <i>Taylor Gobbo</i>		Date: <b>10-27-16</b>	Time: <b>0805</b>	Received by: (Signature): <i>JAV</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Counter <input type="checkbox"/>		Hold #: <b>a</b>
Relinquished by: (Signature): <i>Audrey Mihal</i>		Date: <b>10-27-16</b>	Time: <b>15130</b>	Received by: (Signature): <i>6194 4654 7259</i>	Temp: <b>21°C</b>	Bottles Received: <b>20-VP</b>	Condition: (Lab use only) <b>b</b>
Relinquished by: (Signature):		Date:	Time:	Received for lab by: (Signature): <i>Uttam</i>	Date: <b>10-28-16</b>	Time: <b>0900</b>	pH Checked: <b>✓</b> NCF: <b>NA</b>



## Cooler Receipt Form

Client:	SMEKEN	SDG#	869B4
Cooler Received/Opened On:	10/28/16	Temperature Upon Receipt:	2.1 °c
Received By:	joe hamilton		
Signature:	J. H.		

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were custody papers properly filled out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did all bottles arrive in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were correct bottles used for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was sufficient amount of sample sent in each bottle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If applicable, was an observable VOA headspace present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non Conformance Generated. (If yes see attached NCF)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

November 16, 2016

## S&ME Inc. - Kennesaw GA

Sample Delivery Group: L869114  
Samples Received: 10/28/2016  
Project Number: 4468-14-073A  
Description: Gainesville DOT

Report To: Peter Fleury  
3380 Town Point Drive Suite 140  
Kennesaw, GA 30144

Entire Report Reviewed By:



Jeff Carr  
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



<sup>1</sup> Cp: Cover Page	1	<sup>1</sup> Cp
<sup>2</sup> Tc: Table of Contents	2	<sup>2</sup> Tc
<sup>3</sup> Ss: Sample Summary	3	<sup>3</sup> Ss
<sup>4</sup> Cn: Case Narrative	5	<sup>4</sup> Cn
<sup>5</sup> Sr: Sample Results	6	<sup>5</sup> Sr
MW-1D L869114-01	6	
MW-2D L869114-02	8	
MW-3D L869114-03	10	
MW-4D L869114-04	12	
MW-10D L869114-05	14	
MW-14D L869114-06	16	
MW-25D L869114-07	18	
MW-35D L869114-08	20	
EQUIPMENT L869114-09	22	
<sup>6</sup> Qc: Quality Control Summary	24	<sup>6</sup> Qc
Volatile Organic Compounds (GC/MS) by Method 8260B	24	
<sup>7</sup> Gl: Glossary of Terms	28	<sup>7</sup> Gl
<sup>8</sup> Al: Accreditations & Locations	29	<sup>8</sup> Al
<sup>9</sup> Sc: Chain of Custody	30	<sup>9</sup> Sc

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by Taylor Goble	Collected date/time 10/25/16 12:05	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 06:45	11/04/16 06:45	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 17:01	11/08/16 17:01	JHH
MW-2D L869114-02 GW			Collected by Taylor Goble	Collected date/time 10/25/16 10:45	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 07:08	11/04/16 07:08	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 17:14	11/08/16 17:14	JHH
MW-3D L869114-03 GW			Collected by Taylor Goble	Collected date/time 10/26/16 09:37	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 07:31	11/04/16 07:31	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 18:18	11/08/16 18:18	JHH
MW-4D L869114-04 GW			Collected by Taylor Goble	Collected date/time 10/24/16 16:10	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 07:54	11/04/16 07:54	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 18:30	11/08/16 18:30	JHH
MW-10D L869114-05 GW			Collected by Taylor Goble	Collected date/time 10/26/16 12:10	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 08:18	11/04/16 08:18	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 18:43	11/08/16 18:43	JHH
MW-14D L869114-06 GW			Collected by Taylor Goble	Collected date/time 10/25/16 16:00	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 08:41	11/04/16 08:41	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 17:27	11/08/16 17:27	JHH
MW-25D L869114-07 GW			Collected by Taylor Goble	Collected date/time 10/24/16 11:50	Received date/time 10/28/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 09:05	11/04/16 09:05	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 18:56	11/08/16 18:56	JHH



## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-35D L869114-08 GW		Collected by Taylor Goble	Collected date/time 10/25/16 16:10	Received date/time 10/28/16 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 09:28	11/04/16 09:28	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 17:40	11/08/16 17:40	JHH
EQUIPMENT L869114-09 GW		Collected by Taylor Goble	Collected date/time 10/26/16 10:20	Received date/time 10/28/16 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/04/16 09:51	11/04/16 09:51	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG922002	1	11/08/16 19:08	11/08/16 19:08	JHH

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr  
Technical Service Representative

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> SC

### Sample Handling and Receiving

The analysis for 2-Chloroethyl Vinyl Ether was conducted from a chemically preserved container.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L869114-01	MW-1D	8260B
L869114-02	MW-2D	8260B
L869114-03	MW-3D	8260B
L869114-04	MW-4D	8260B
L869114-05	MW-10D	8260B
L869114-06	MW-14D	8260B
L869114-07	MW-25D	8260B
L869114-08	MW-35D	8260B
L869114-09	EQUIPMENT	8260B

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L869114-04	MW-4D	8260B
L869114-07	MW-25D	8260B



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 06:45	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 06:45	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 06:45	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 06:45	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 06:45	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 06:45	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 06:45	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 06:45	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 06:45	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 06:45	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 06:45	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 06:45	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 06:45	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 06:45	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 06:45	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 06:45	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 06:45	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 06:45	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 06:45	WG922002	
1,1-Dichloroethene	0.00600		0.00500	1	11/04/2016 06:45	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 06:45	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 06:45	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 06:45	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 06:45	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 06:45	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 17:01	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 06:45	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 06:45	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 06:45	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 06:45	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 06:45	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 06:45	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 06:45	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	
Styrene	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 06:45	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 06:45	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 06:45	WG922002	
Toluene	ND		0.00500	1	11/04/2016 06:45	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 06:45	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 06:45	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	ND		0.00500	1	11/04/2016 06:45	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 06:45	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 06:45	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 06:45	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 06:45	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 06:45	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 06:45	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 06:45	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 06:45	<a href="#">WG922002</a>	
(S) Toluene-d8	102		90.0-115		11/04/2016 06:45	<a href="#">WG922002</a>	
(S) Toluene-d8	100		90.0-115		11/08/2016 17:01	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	94.9		79.0-121		11/08/2016 17:01	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	96.0		79.0-121		11/04/2016 06:45	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	103		80.1-120		11/04/2016 06:45	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 17:01	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 07:08	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 07:08	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 07:08	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 07:08	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 07:08	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 07:08	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 07:08	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 07:08	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 07:08	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 07:08	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 07:08	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 07:08	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 07:08	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 07:08	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 07:08	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 07:08	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 07:08	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 07:08	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 07:08	WG922002	
1,1-Dichloroethene	ND		0.00500	1	11/04/2016 07:08	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 07:08	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 07:08	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 07:08	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 07:08	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 07:08	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 17:14	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 07:08	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 07:08	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 07:08	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 07:08	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 07:08	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 07:08	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 07:08	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	
Styrene	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 07:08	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 07:08	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 07:08	WG922002	
Toluene	ND		0.00500	1	11/04/2016 07:08	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 07:08	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 07:08	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	ND		0.00500	1	11/04/2016 07:08	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 07:08	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 07:08	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 07:08	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 07:08	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 07:08	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 07:08	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 07:08	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 07:08	<a href="#">WG922002</a>	
(S) Toluene-d8	103		90.0-115		11/04/2016 07:08	<a href="#">WG922002</a>	
(S) Toluene-d8	101		90.0-115		11/08/2016 17:14	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	94.4		79.0-121		11/08/2016 17:14	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	94.2		79.0-121		11/04/2016 07:08	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	102		80.1-120		11/04/2016 07:08	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	114		80.1-120		11/08/2016 17:14	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 07:31	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 07:31	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 07:31	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 07:31	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 07:31	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 07:31	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 07:31	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 07:31	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 07:31	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 07:31	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 07:31	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 07:31	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 07:31	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 07:31	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 07:31	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 07:31	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 07:31	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 07:31	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 07:31	WG922002	
1,1-Dichloroethene	0.0375		0.00500	1	11/04/2016 07:31	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 07:31	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 07:31	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 07:31	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 07:31	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 07:31	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,4-Dioxane	0.112		0.100	1	11/08/2016 18:18	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 07:31	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 07:31	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 07:31	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 07:31	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 07:31	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 07:31	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 07:31	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	
Styrene	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 07:31	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 07:31	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 07:31	WG922002	
Toluene	ND		0.00500	1	11/04/2016 07:31	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 07:31	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 07:31	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	ND		0.00500	1	11/04/2016 07:31	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 07:31	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 07:31	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 07:31	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 07:31	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 07:31	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 07:31	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 07:31	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 07:31	<a href="#">WG922002</a>	
(S) Toluene-d8	102		90.0-115		11/04/2016 07:31	<a href="#">WG922002</a>	
(S) Toluene-d8	100		90.0-115		11/08/2016 18:18	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	92.7		79.0-121		11/08/2016 18:18	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	96.9		79.0-121		11/04/2016 07:31	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	99.5		80.1-120		11/04/2016 07:31	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	110		80.1-120		11/08/2016 18:18	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 07:54	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 07:54	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 07:54	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 07:54	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 07:54	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 07:54	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 07:54	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 07:54	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 07:54	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 07:54	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 07:54	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 07:54	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 07:54	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 07:54	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 07:54	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 07:54	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 07:54	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 07:54	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 07:54	WG922002	
1,1-Dichloroethene	ND		0.00500	1	11/04/2016 07:54	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 07:54	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 07:54	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 07:54	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 07:54	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 07:54	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 18:30	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 07:54	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 07:54	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 07:54	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 07:54	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 07:54	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 07:54	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 07:54	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	
Styrene	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 07:54	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 07:54	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 07:54	WG922002	
Toluene	ND		0.00500	1	11/04/2016 07:54	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 07:54	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 07:54	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	0.0162		0.00500	1	11/04/2016 07:54	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 07:54	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 07:54	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 07:54	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 07:54	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 07:54	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 07:54	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 07:54	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 07:54	<a href="#">WG922002</a>	
(S) Toluene-d8	102		90.0-115		11/04/2016 07:54	<a href="#">WG922002</a>	
(S) Toluene-d8	98.1		90.0-115		11/08/2016 18:30	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	92.4		79.0-121		11/08/2016 18:30	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	96.6		79.0-121		11/04/2016 07:54	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	99.5		80.1-120		11/04/2016 07:54	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	110		80.1-120		11/08/2016 18:30	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 08:18	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 08:18	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 08:18	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 08:18	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 08:18	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 08:18	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 08:18	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 08:18	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 08:18	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 08:18	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 08:18	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 08:18	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 08:18	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 08:18	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 08:18	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 08:18	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 08:18	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 08:18	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 08:18	WG922002	
1,1-Dichloroethene	ND		0.00500	1	11/04/2016 08:18	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 08:18	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 08:18	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 08:18	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 08:18	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 08:18	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 18:43	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 08:18	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 08:18	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 08:18	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 08:18	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 08:18	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 08:18	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 08:18	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	
Styrene	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 08:18	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 08:18	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 08:18	WG922002	
Toluene	ND		0.00500	1	11/04/2016 08:18	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 08:18	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 08:18	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	ND		0.00500	1	11/04/2016 08:18	<a href="#">WG922002</a>	
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 08:18	<a href="#">WG922002</a>	<sup>3</sup> Ss
Trichloroethene	ND		0.00500	1	11/04/2016 08:18	<a href="#">WG922002</a>	
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 08:18	<a href="#">WG922002</a>	
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 08:18	<a href="#">WG922002</a>	
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 08:18	<a href="#">WG922002</a>	
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 08:18	<a href="#">WG922002</a>	<sup>5</sup> Sr
Vinyl chloride	ND		0.00200	1	11/04/2016 08:18	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 08:18	<a href="#">WG922002</a>	
(S) Toluene-d8	101		90.0-115		11/04/2016 08:18	<a href="#">WG922002</a>	<sup>6</sup> Qc
(S) Toluene-d8	100		90.0-115		11/08/2016 18:43	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	93.7		79.0-121		11/08/2016 18:43	<a href="#">WG922002</a>	<sup>7</sup> GI
(S) Dibromofluoromethane	96.4		79.0-121		11/04/2016 08:18	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	101		80.1-120		11/04/2016 08:18	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 18:43	<a href="#">WG922002</a>	<sup>8</sup> AI
							<sup>9</sup> SC



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 08:41	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 08:41	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 08:41	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 08:41	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 08:41	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 08:41	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 08:41	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 08:41	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 08:41	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 08:41	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 08:41	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 08:41	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 08:41	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 08:41	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 08:41	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 08:41	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 08:41	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 08:41	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 08:41	WG922002	
1,1-Dichloroethene	ND		0.00500	1	11/04/2016 08:41	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 08:41	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 08:41	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 08:41	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 08:41	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 08:41	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 17:27	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 08:41	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 08:41	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 08:41	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 08:41	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 08:41	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 08:41	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 08:41	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	
Styrene	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 08:41	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 08:41	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 08:41	WG922002	
Toluene	ND		0.00500	1	11/04/2016 08:41	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 08:41	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 08:41	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	ND		0.00500	1	11/04/2016 08:41	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 08:41	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 08:41	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 08:41	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 08:41	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 08:41	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 08:41	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 08:41	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 08:41	<a href="#">WG922002</a>	
(S) Toluene-d8	101		90.0-115		11/04/2016 08:41	<a href="#">WG922002</a>	
(S) Toluene-d8	100		90.0-115		11/08/2016 17:27	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	93.1		79.0-121		11/08/2016 17:27	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	97.3		79.0-121		11/04/2016 08:41	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	99.3		80.1-120		11/04/2016 08:41	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	110		80.1-120		11/08/2016 17:27	<a href="#">WG922002</a>	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 09:05	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 09:05	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 09:05	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 09:05	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 09:05	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 09:05	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 09:05	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 09:05	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 09:05	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 09:05	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 09:05	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 09:05	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 09:05	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 09:05	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 09:05	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 09:05	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 09:05	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 09:05	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 09:05	WG922002	
1,1-Dichloroethene	0.102		0.00500	1	11/04/2016 09:05	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 09:05	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 09:05	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 09:05	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 09:05	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 09:05	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 18:56	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 09:05	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 09:05	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 09:05	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 09:05	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 09:05	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 09:05	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 09:05	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	
Styrene	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 09:05	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 09:05	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 09:05	WG922002	
Toluene	ND		0.00500	1	11/04/2016 09:05	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 09:05	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 09:05	<a href="#">WG922002</a>	
1,1,1-Trichloroethane	0.120		0.00500	1	11/04/2016 09:05	<a href="#">WG922002</a>	
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 09:05	<a href="#">WG922002</a>	
Trichloroethene	ND		0.00500	1	11/04/2016 09:05	<a href="#">WG922002</a>	
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 09:05	<a href="#">WG922002</a>	
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 09:05	<a href="#">WG922002</a>	
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 09:05	<a href="#">WG922002</a>	
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 09:05	<a href="#">WG922002</a>	
Vinyl chloride	ND		0.00200	1	11/04/2016 09:05	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 09:05	<a href="#">WG922002</a>	
(S) Toluene-d8	102		90.0-115		11/04/2016 09:05	<a href="#">WG922002</a>	
(S) Toluene-d8	100		90.0-115		11/08/2016 18:56	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	94.3		79.0-121		11/08/2016 18:56	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	98.0		79.0-121		11/04/2016 09:05	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	99.7		80.1-120		11/04/2016 09:05	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 18:56	<a href="#">WG922002</a>	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 09:28	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 09:28	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 09:28	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 09:28	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 09:28	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 09:28	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 09:28	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 09:28	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 09:28	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 09:28	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 09:28	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 09:28	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 09:28	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 09:28	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 09:28	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 09:28	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 09:28	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 09:28	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 09:28	WG922002	
1,1-Dichloroethene	ND		0.00500	1	11/04/2016 09:28	WG922002	
cis-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 09:28	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 09:28	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 09:28	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 09:28	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 09:28	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 17:40	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 09:28	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 09:28	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 09:28	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 09:28	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 09:28	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 09:28	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 09:28	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	
Styrene	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 09:28	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 09:28	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 09:28	WG922002	
Toluene	ND		0.00500	1	11/04/2016 09:28	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 09:28	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 09:28	<a href="#">WG922002</a>	
1,1,1-Trichloroethane	ND		0.00500	1	11/04/2016 09:28	<a href="#">WG922002</a>	
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 09:28	<a href="#">WG922002</a>	
Trichloroethene	ND		0.00500	1	11/04/2016 09:28	<a href="#">WG922002</a>	
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 09:28	<a href="#">WG922002</a>	
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 09:28	<a href="#">WG922002</a>	
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 09:28	<a href="#">WG922002</a>	
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 09:28	<a href="#">WG922002</a>	
Vinyl chloride	ND		0.00200	1	11/04/2016 09:28	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 09:28	<a href="#">WG922002</a>	
(S) Toluene-d8	101		90.0-115		11/04/2016 09:28	<a href="#">WG922002</a>	
(S) Toluene-d8	99.6		90.0-115		11/08/2016 17:40	<a href="#">WG922002</a>	<sup>6</sup> Qc
(S) Dibromofluoromethane	95.3		79.0-121		11/08/2016 17:40	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	98.5		79.0-121		11/04/2016 09:28	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	100		80.1-120		11/04/2016 09:28	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	108		80.1-120		11/08/2016 17:40	<a href="#">WG922002</a>	<sup>7</sup> GI
							<sup>8</sup> AI
							<sup>9</sup> SC



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
Acetone	ND		0.0500	1	11/04/2016 09:51	WG922002	<sup>1</sup> Cp
Acrolein	ND	J3 J4	0.0500	1	11/04/2016 09:51	WG922002	<sup>2</sup> Tc
Acrylonitrile	ND		0.0100	1	11/04/2016 09:51	WG922002	<sup>3</sup> Ss
Benzene	ND		0.00100	1	11/04/2016 09:51	WG922002	<sup>4</sup> Cn
Bromobenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	<sup>5</sup> Sr
Bromodichloromethane	ND		0.00100	1	11/04/2016 09:51	WG922002	<sup>6</sup> Qc
Bromoform	ND		0.00100	1	11/04/2016 09:51	WG922002	<sup>7</sup> Gl
Bromomethane	ND		0.00500	1	11/04/2016 09:51	WG922002	<sup>8</sup> Al
n-Butylbenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	<sup>9</sup> Sc
sec-Butylbenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	
tert-Butylbenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	
Carbon tetrachloride	ND		0.00500	1	11/04/2016 09:51	WG922002	
Chlorobenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	
Chlorodibromomethane	ND		0.00100	1	11/04/2016 09:51	WG922002	
Chloroethane	ND		0.00500	1	11/04/2016 09:51	WG922002	
2-Chloroethyl vinyl ether	ND		0.0500	1	11/04/2016 09:51	WG922002	
Chloroform	ND		0.00500	1	11/04/2016 09:51	WG922002	
Chloromethane	ND		0.00250	1	11/04/2016 09:51	WG922002	
2-Chlorotoluene	ND		0.00100	1	11/04/2016 09:51	WG922002	
4-Chlorotoluene	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	11/04/2016 09:51	WG922002	
1,2-Dibromoethane	ND		0.00100	1	11/04/2016 09:51	WG922002	
Dibromomethane	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,2-Dichlorobenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,3-Dichlorobenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,4-Dichlorobenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	
Dichlorodifluoromethane	ND		0.00500	1	11/04/2016 09:51	WG922002	
1,1-Dichloroethane	ND		0.00500	1	11/04/2016 09:51	WG922002	
1,2-Dichloroethane	ND		0.00500	1	11/04/2016 09:51	WG922002	
1,1-Dichloroethene	ND		0.00500	1	11/04/2016 09:51	WG922002	
cis-1,2-Dichloroethene	ND		0.00500	1	11/04/2016 09:51	WG922002	
trans-1,2-Dichloroethene	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,2-Dichloropropane	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,1-Dichloropropene	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,3-Dichloropropane	ND		0.00100	1	11/04/2016 09:51	WG922002	
cis-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 09:51	WG922002	
trans-1,3-Dichloropropene	ND		0.00100	1	11/04/2016 09:51	WG922002	
2,2-Dichloropropane	ND		0.00100	1	11/04/2016 09:51	WG922002	
Di-isopropyl ether	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,4-Dioxane	ND		0.100	1	11/08/2016 19:08	WG922002	
Ethylbenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	
Hexachloro-1,3-butadiene	ND		0.00100	1	11/04/2016 09:51	WG922002	
Isopropylbenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	
p-Isopropyltoluene	ND		0.00100	1	11/04/2016 09:51	WG922002	
2-Butanone (MEK)	ND		0.0100	1	11/04/2016 09:51	WG922002	
Methylene Chloride	ND		0.00500	1	11/04/2016 09:51	WG922002	
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	11/04/2016 09:51	WG922002	
Methyl tert-butyl ether	ND		0.00100	1	11/04/2016 09:51	WG922002	
Naphthalene	ND		0.00500	1	11/04/2016 09:51	WG922002	
n-Propylbenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	
Styrene	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,1,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 09:51	WG922002	
1,1,2,2-Tetrachloroethane	ND		0.00100	1	11/04/2016 09:51	WG922002	
Tetrachloroethene	ND		0.00500	1	11/04/2016 09:51	WG922002	
Toluene	ND		0.00500	1	11/04/2016 09:51	WG922002	
1,2,3-Trichlorobenzene	ND		0.00100	1	11/04/2016 09:51	WG922002	



## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch	
	mg/l		mg/l				<sup>1</sup> Cp
1,2,4-Trichlorobenzene	ND		0.00100	1	11/04/2016 09:51	<a href="#">WG922002</a>	<sup>2</sup> Tc
1,1,1-Trichloroethane	ND		0.00500	1	11/04/2016 09:51	<a href="#">WG922002</a>	<sup>3</sup> Ss
1,1,2-Trichloroethane	ND		0.00500	1	11/04/2016 09:51	<a href="#">WG922002</a>	<sup>4</sup> Cn
Trichloroethene	ND		0.00500	1	11/04/2016 09:51	<a href="#">WG922002</a>	<sup>5</sup> Sr
Trichlorofluoromethane	ND		0.00500	1	11/04/2016 09:51	<a href="#">WG922002</a>	<sup>6</sup> Qc
1,2,3-Trichloropropane	ND		0.00250	1	11/04/2016 09:51	<a href="#">WG922002</a>	<sup>7</sup> Gl
1,2,4-Trimethylbenzene	ND		0.00100	1	11/04/2016 09:51	<a href="#">WG922002</a>	<sup>8</sup> Al
1,3,5-Trimethylbenzene	ND		0.00100	1	11/04/2016 09:51	<a href="#">WG922002</a>	<sup>9</sup> Sc
Vinyl chloride	ND		0.00200	1	11/04/2016 09:51	<a href="#">WG922002</a>	
Xylenes, Total	ND		0.00300	1	11/04/2016 09:51	<a href="#">WG922002</a>	
(S) Toluene-d8	101		90.0-115		11/04/2016 09:51	<a href="#">WG922002</a>	
(S) Toluene-d8	99.8		90.0-115		11/08/2016 19:08	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	92.0		79.0-121		11/08/2016 19:08	<a href="#">WG922002</a>	
(S) Dibromofluoromethane	99.2		79.0-121		11/04/2016 09:51	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	100		80.1-120		11/04/2016 09:51	<a href="#">WG922002</a>	
(S) 4-Bromofluorobenzene	111		80.1-120		11/08/2016 19:08	<a href="#">WG922002</a>	



L869114-01,02,03,04,05,06,07,08,09

## Method Blank (MB)

(MB) R3175950-1 11/04/16 04:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l	
Acetone	U		0.0100	0.0500	<sup>1</sup> Cp
Acrolein	U		0.00887	0.0500	<sup>2</sup> Tc
Acrylonitrile	U		0.00187	0.0100	<sup>3</sup> Ss
Benzene	U		0.000331	0.00100	<sup>4</sup> Cn
Bromobenzene	U		0.000352	0.00100	<sup>5</sup> Sr
Bromodichloromethane	U		0.000380	0.00100	<sup>6</sup> Qc
Bromoform	U		0.000469	0.00100	<sup>7</sup> Gl
Bromomethane	U		0.000866	0.00500	<sup>8</sup> Al
n-Butylbenzene	U		0.000361	0.00100	<sup>9</sup> Sc
sec-Butylbenzene	U		0.000365	0.00100	
tert-Butylbenzene	U		0.000399	0.00100	
Carbon tetrachloride	U		0.000379	0.00100	
Chlorobenzene	U		0.000348	0.00100	
Chlorodibromomethane	U		0.000327	0.00100	
Chloroethane	U		0.000453	0.00500	
2-Chloroethyl vinyl ether	U		0.00301	0.0500	
Chloroform	U		0.000324	0.00500	
Chloromethane	U		0.000276	0.00250	
2-Chlorotoluene	U		0.000375	0.00100	
4-Chlorotoluene	U		0.000351	0.00100	
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	
1,2-Dibromoethane	U		0.000381	0.00100	
Dibromomethane	U		0.000346	0.00100	
1,2-Dichlorobenzene	U		0.000349	0.00100	
1,3-Dichlorobenzene	U		0.000220	0.00100	
1,4-Dichlorobenzene	U		0.000274	0.00100	
Dichlorodifluoromethane	U		0.000551	0.00500	
1,1-Dichloroethane	U		0.000259	0.00100	
1,2-Dichloroethane	U		0.000361	0.00100	
1,1-Dichloroethene	U		0.000398	0.00100	
cis-1,2-Dichloroethene	U		0.000260	0.00100	
trans-1,2-Dichloroethene	U		0.000396	0.00100	
1,2-Dichloropropane	U		0.000306	0.00100	
1,1-Dichloropropene	U		0.000352	0.00100	
1,3-Dichloropropane	U		0.000366	0.00100	
cis-1,3-Dichloropropene	U		0.000418	0.00100	
trans-1,3-Dichloropropene	U		0.000419	0.00100	
2,2-Dichloropropane	U		0.000321	0.00100	
Di-isopropyl ether	U		0.000320	0.00100	
Ethylbenzene	U		0.000384	0.00100	



L869114-01,02,03,04,05,06,07,08,09

## Method Blank (MB)

(MB) R3175950-1 11/04/16 04:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l									
Hexachloro-1,3-butadiene	0.000480	J	0.000256	0.00100									
Isopropylbenzene	U		0.000326	0.00100									
p-Isopropyltoluene	U		0.000350	0.00100									
2-Butanone (MEK)	U		0.00393	0.0100									
Methylene Chloride	U		0.00100	0.00500									
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100									
Methyl tert-butyl ether	U		0.000367	0.00100									
Naphthalene	U		0.00100	0.00500									
n-Propylbenzene	U		0.000349	0.00100									
Styrene	U		0.000307	0.00100									
1,1,2-Tetrachloroethane	U		0.000385	0.00100									
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100									
Tetrachloroethene	U		0.000372	0.00100									
Toluene	U		0.000780	0.00500									
1,2,3-Trichlorobenzene	U		0.000230	0.00100									
1,2,4-Trichlorobenzene	U		0.000355	0.00100									
1,1,1-Trichloroethane	U		0.000319	0.00100									
1,1,2-Trichloroethane	U		0.000383	0.00100									
Trichloroethene	U		0.000398	0.00100									
Trichlorofluoromethane	U		0.00120	0.00500									
1,2,3-Trichloropropane	U		0.000807	0.00250									
1,2,4-Trimethylbenzene	U		0.000373	0.00100									
1,3,5-Trimethylbenzene	U		0.000387	0.00100									
Vinyl chloride	U		0.000259	0.00100									
Xylenes, Total	U		0.00106	0.00300									
1,4-Dioxane	U		0.0360	0.100									
(S) Toluene-d8	102			90.0-115									
(S) Dibromofluoromethane	95.0			79.0-121									
(S) 4-Bromofluorobenzene	100			80.1-120									

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175950-2 11/04/16 14:04 • (LCSD) R3175950-3 11/04/16 14:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Acetone	0.125	0.208	0.214	166	171	28.7-175			2.98	20.9
Acrolein	0.125	0.0459	0.0374	36.8	29.9	40.4-172	J4	J3 J4	20.6	20
Acrylonitrile	0.125	0.112	0.109	89.5	87.0	58.2-145			2.78	20
Benzene	0.0250	0.0213	0.0214	85.4	85.5	73.0-122			0.100	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175950-2 11/04/16 14:04 • (LCSD) R3175950-3 11/04/16 14:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromobenzene	0.0250	0.0210	0.0212	83.8	84.6	81.5-115			0.920	20
Bromodichloromethane	0.0250	0.0208	0.0209	83.0	83.7	75.5-121			0.820	20
Bromoform	0.0250	0.0225	0.0229	89.9	91.5	71.5-131			1.73	20
Bromomethane	0.0250	0.0164	0.0179	65.5	71.5	22.4-187			8.68	20
n-Butylbenzene	0.0250	0.0200	0.0199	79.8	79.6	75.9-134			0.260	20
sec-Butylbenzene	0.0250	0.0217	0.0217	86.9	86.8	80.6-126			0.0400	20
tert-Butylbenzene	0.0250	0.0216	0.0218	86.6	87.0	79.3-127			0.530	20
Carbon tetrachloride	0.0250	0.0195	0.0198	77.8	79.2	70.9-129			1.74	20
Chlorobenzene	0.0250	0.0221	0.0225	88.2	90.0	79.7-122			2.00	20
Chlorodibromomethane	0.0250	0.0224	0.0229	89.7	91.5	78.2-124			1.94	20
Chloroethane	0.0250	0.0155	0.0162	61.8	64.9	41.2-153			4.89	20
2-Chloroethyl vinyl ether	0.125	0.0997	0.101	79.7	80.8	23.4-162			1.29	23.5
Chloroform	0.0250	0.0212	0.0213	84.8	85.1	73.2-125			0.370	20
Chloromethane	0.0250	0.0224	0.0219	89.7	87.6	55.8-134			2.27	20
2-Chlorotoluene	0.0250	0.0222	0.0223	88.7	89.4	76.4-125			0.720	20
4-Chlorotoluene	0.0250	0.0220	0.0220	87.9	88.1	81.5-121			0.170	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0207	0.0203	82.9	81.2	64.8-131			2.13	20
1,2-Dibromoethane	0.0250	0.0222	0.0225	89.0	90.1	79.8-122			1.23	20
Dibromomethane	0.0250	0.0218	0.0222	87.3	88.8	79.5-118			1.65	20
1,2-Dichlorobenzene	0.0250	0.0218	0.0217	87.1	86.9	84.7-118			0.230	20
1,3-Dichlorobenzene	0.0250	0.0232	0.0233	92.9	93.4	77.6-127			0.520	20
1,4-Dichlorobenzene	0.0250	0.0208	0.0211	83.1	84.4	82.2-114			1.54	20
Dichlorodifluoromethane	0.0250	0.0207	0.0205	82.9	81.8	56.0-134			1.31	20
1,1-Dichloroethane	0.0250	0.0211	0.0210	84.6	84.1	71.7-127			0.530	20
1,2-Dichloroethane	0.0250	0.0200	0.0201	80.1	80.6	65.3-126			0.600	20
1,1-Dichloroethene	0.0250	0.0222	0.0220	88.6	88.0	59.9-137			0.680	20
cis-1,2-Dichloroethene	0.0250	0.0219	0.0217	87.6	86.9	77.3-122			0.710	20
trans-1,2-Dichloroethene	0.0250	0.0213	0.0212	85.1	84.9	72.6-125			0.240	20
1,2-Dichloropropane	0.0250	0.0219	0.0220	87.6	88.0	77.4-125			0.400	20
1,1-Dichloropropene	0.0250	0.0209	0.0207	83.6	82.7	72.5-127			1.04	20
1,3-Dichloropropane	0.0250	0.0226	0.0227	90.4	90.8	80.6-115			0.430	20
cis-1,3-Dichloropropene	0.0250	0.0211	0.0215	84.6	86.1	77.7-124			1.76	20
trans-1,3-Dichloropropene	0.0250	0.0206	0.0212	82.5	85.0	73.5-127			2.94	20
2,2-Dichloropropane	0.0250	0.0187	0.0191	74.7	76.2	61.3-134			1.96	20
Di-isopropyl ether	0.0250	0.0209	0.0208	83.6	83.3	65.1-135			0.370	20
Ethylbenzene	0.0250	0.0216	0.0220	86.6	87.8	80.9-121			1.41	20
Hexachloro-1,3-butadiene	0.0250	0.0213	0.0203	85.0	81.2	73.7-133			4.57	20
Isopropylbenzene	0.0250	0.0215	0.0218	86.1	87.1	81.6-124			1.19	20
p-Isopropyltoluene	0.0250	0.0220	0.0219	87.9	87.5	77.6-129			0.440	20
2-Butanone (MEK)	0.125	0.110	0.119	87.9	95.0	46.4-155			7.72	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175950-2 11/04/16 14:04 • (LCSD) R3175950-3 11/04/16 14:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Methylene Chloride	0.0250	0.0214	0.0208	85.4	83.4	69.5-120			2.44	20
4-Methyl-2-pentanone (MIBK)	0.125	0.104	0.103	82.9	82.8	63.3-138			0.200	20
Methyl tert-butyl ether	0.0250	0.0216	0.0215	86.4	86.1	70.1-125			0.340	20
Naphthalene	0.0250	0.0221	0.0208	88.2	83.3	69.7-134			5.69	20
n-Propylbenzene	0.0250	0.0219	0.0220	87.7	88.2	81.9-122			0.560	20
Styrene	0.0250	0.0219	0.0223	87.5	89.2	79.9-124			1.95	20
1,1,2-Tetrachloroethane	0.0250	0.0219	0.0225	87.5	90.1	78.5-125			2.96	20
1,1,2,2-Tetrachloroethane	0.0250	0.0228	0.0225	91.2	90.0	79.3-123			1.32	20
Tetrachloroethene	0.0250	0.0213	0.0221	85.3	88.5	73.5-130			3.69	20
Toluene	0.0250	0.0213	0.0217	85.0	86.8	77.9-116			2.11	20
1,2,3-Trichlorobenzene	0.0250	0.0228	0.0214	91.0	85.5	75.7-134			6.31	20
1,2,4-Trichlorobenzene	0.0250	0.0229	0.0217	91.6	86.9	76.1-136			5.20	20
1,1,1-Trichloroethane	0.0250	0.0194	0.0199	77.7	79.7	71.1-129			2.59	20
1,1,2-Trichloroethane	0.0250	0.0230	0.0230	92.0	92.0	81.6-120			0.0400	20
Trichloroethene	0.0250	0.0219	0.0224	87.8	89.8	79.5-121			2.27	20
Trichlorofluoromethane	0.0250	0.0223	0.0222	89.4	88.7	49.1-157			0.790	20
1,2,3-Trichloropropane	0.0250	0.0216	0.0216	86.5	86.2	74.9-124			0.400	20
1,2,4-Trimethylbenzene	0.0250	0.0219	0.0218	87.7	87.2	79.0-122			0.490	20
1,3,5-Trimethylbenzene	0.0250	0.0215	0.0216	86.2	86.5	81.0-123			0.420	20
Vinyl chloride	0.0250	0.0217	0.0217	86.8	87.0	61.5-134			0.150	20
Xylenes, Total	0.0750	0.0643	0.0657	85.8	87.6	79.2-122			2.09	20
(S) Toluene-d8				102	103	90.0-115				
(S) Dibromofluoromethane				98.5	98.3	79.0-121				
(S) 4-Bromofluorobenzene				99.5	99.9	80.1-120				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc



## Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

## Qualifier      Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



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\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey—NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio—VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

Company Name/Address: <b>S&amp;ME Inc Kennesaw GA</b> 3380 Town Point Pkwy Suite 140 Kennesaw, GA 30144		Billing Information: <b>S&amp;ME Inc Kennesaw GA</b> 3380 Town Point Pkwy Suite 140 Kennesaw, GA 30144		Analysis / Container / Preservative						Chain of Custody	Page _____ of _____		
Report to: <b>Pete. Elfray</b>		Email To: <b>pelfruiy @smeinc.com</b>								<b>ESC</b> L-A-B S-C-I-E-N-C-E-S YOUR LAB OF CHOICE			
Project Description: <b>Gainesville DOT</b>		City/State Collected: <b>Gainesville, GA</b>								Lab ID: <b>869118</b> E163			
Phone: (770)919-0969 Fax: (770)919-2360	Client Project # <b>4468-14-073A</b>	Lab Project #								Template:			
Collected by (print): <b>Taylor Gable</b>	Site/Facility ID #	P.O. # <b>4468-14-073A</b>								Prelogin:			
Collected by (signature): <b>Taylor Gable</b>	Rush? (Lab MUST Be Notified)	Date Results Needed								TSR:			
Immediately Packed on Ice N <b>Y</b>	Same Day 200% Next Day 100% Two Day 50% Three Day 75%	Email? No <input checked="" type="checkbox"/> Yes FAX? No <input type="checkbox"/> Yes		No. of ntrs						Cooler:			
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	VOCS 8260B						Shipped Via:	
MW-1D	Grab	CW		10-25-16	1205	2	X					01	
MW-2D	Grab	CW		10-25-16	1045	2	X					02	
14W-3D	Grab	CW		10-26-16	0937	2	X					03	
14W-4D	Grab	CW		10-24-16	1610	2	X					04	
14W-10D	Grab	CW		10-26-16	1210	2	X					05	
14W-14D	Grab	CW		10-26-16	1600	2	X					06	
MW-25D	Grab	CW		10-24-16	1150	2	X					07	
14W-35D	Grab	CW		10-25-16	1610	2	X					08	
Equipment Blank	Grab	CW		10-26-16	1020	2	X					09	
* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____												pH _____	Temp _____
Remarks:												Flow _____	Other _____
Relinquished by: (Signature) <b>Taylor Gable</b>		Date: <b>10-27-16</b>	Time: <b>0005</b>	Received by: (Signature) <b>Amber M. H. S.</b>		Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>						Hold #: <b>6-7011</b>	Condition: (lab use only)
Relinquished by: (Signature) <b>Daniel W. M. H.</b>		Date: <b>10-27-16</b>	Time: <b>15130</b>	Received by: (Signature) <b>6194 4954 7259</b>		emp: <b>21.1° C</b>	°C	Bottles Received: <b>18 = VP</b>	COC Seal Intact: <b>✓ Y N NA</b>				
Relinquished by: (Signature)		Date:	Time:	Received for lab by: (Signature)		Date: <b>10-28-16</b>	Time: <b>0900</b>	pH Checked: <b>NCF</b>					



## Cooler Receipt Form

Client:	<i>JM</i>	SDG#	<i>869114</i>
Cooler Received/Opened On:	<i>10/28/16</i>	Temperature Upon Receipt:	<i>211 °C</i>
Received By:	<i>joe hamilton</i>		
Signature:	<i>[Handwritten signature]</i>		
Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	<input checked="" type="checkbox"/>		
Were custody papers properly filled out?	<input checked="" type="checkbox"/>		
Did all bottles arrive in good condition?	<input checked="" type="checkbox"/>		
Were correct bottles used for the analyses requested?	<input checked="" type="checkbox"/>		
Was sufficient amount of sample sent in each bottle?	<input checked="" type="checkbox"/>		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)			
If applicable, was an observable VOA headspace present?	<input checked="" type="checkbox"/>		
Non Conformance Generated. (If yes see attached NCF)			

November 28, 2016

## S&ME Inc. - Kennesaw GA

Sample Delivery Group: L873745  
Samples Received: 11/18/2016  
Project Number: 4468-14-073A  
Description: Gainesville DOT

Report To: Peter Fleury  
3380 Town Point Drive Suite 140  
Kennesaw, GA 30144

Entire Report Reviewed By:



Jason Romer  
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



<b><sup>1</sup>Cp: Cover Page</b>	<b>1</b>	<b><sup>1</sup>Cp</b>
<b><sup>2</sup>Tc: Table of Contents</b>	<b>2</b>	<b><sup>2</sup>Tc</b>
<b><sup>3</sup>Ss: Sample Summary</b>	<b>3</b>	<b><sup>3</sup>Ss</b>
<b><sup>4</sup>Cn: Case Narrative</b>	<b>4</b>	<b><sup>4</sup>Cn</b>
<b><sup>5</sup>Sr: Sample Results</b>	<b>5</b>	<b><sup>5</sup>Sr</b>
MW-9R L873745-01	5	
MW-14D L873745-02	6	
<b><sup>6</sup>Qc: Quality Control Summary</b>	<b>7</b>	<b><sup>6</sup>Qc</b>
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	7	
<b><sup>7</sup>Gl: Glossary of Terms</b>	<b>8</b>	<b><sup>7</sup>Gl</b>
<b><sup>8</sup>Al: Accreditations &amp; Locations</b>	<b>9</b>	<b><sup>8</sup>Al</b>
<b><sup>9</sup>Sc: Chain of Custody</b>	<b>10</b>	<b><sup>9</sup>Sc</b>

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-9R L873745-01 GW			Collected by Taylor Gable	Collected date/time 11/16/16 13:37	Received date/time 11/18/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG928532	1	11/21/16 17:10	11/21/16 17:10	LRL
MW-14D L873745-02 GW			Collected by Taylor Gable	Collected date/time 11/16/16 10:42	Received date/time 11/18/16 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B-SIM	WG928532	1	11/21/16 17:29	11/21/16 17:29	LRL

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer  
Technical Service Representative

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch	
1,4-Dioxane	0.0154		0.00300	1	11/21/2016 17:10	<a href="#">WG928532</a>	<sup>1</sup> Cp
(S) Toluene-d8	100		70.0-130		11/21/2016 17:10	<a href="#">WG928532</a>	<sup>2</sup> Tc <sup>3</sup> Ss <sup>4</sup> Cn <sup>5</sup> Sr <sup>6</sup> Qc <sup>7</sup> Gl <sup>8</sup> Al <sup>9</sup> Sc



## Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

Analyte	Result mg/l	<u>Qualifier</u>	RDL mg/l	Dilution	Analysis date / time	<u>Batch</u>	
1,4-Dioxane	0.00344		0.00300	1	11/21/2016 17:29	<a href="#">WG928532</a>	<sup>1</sup> Cp
(S) Toluene-d8	93.9		70.0-130		11/21/2016 17:29	<a href="#">WG928532</a>	<sup>2</sup> Tc

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

WG928532

Volatile Organic Compounds (GC/MS) by Method 8260B-SIM

## QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

[L873745-01,02](#)

## Method Blank (MB)

(MB) R3180095-3 11/21/16 12:01

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
1,4-Dioxane	U		0.000597	0.00300
(S) Toluene-d8	100			70.0-130

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3180095-1 11/21/16 11:03 • (LCSD) R3180095-2 11/21/16 11:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits
1,4-Dioxane	0.0500	0.0460	0.0460	92.0	92.0	70.0-130			0.000	25
(S) Toluene-d8			93.6	93.9	93.9	70.0-130				

## L873887-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L873887-05 11/25/16 13:19 • (MS) R3180655-1 11/25/16 13:38 • (MSD) R3180655-2 11/25/16 13:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits
1,4-Dioxane	0.0500	6.30	9.45	11.3	126	201	50	0.000-200	J5		18.0	42
(S) Toluene-d8				102	102			70.0-130				



## Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

## Qualifier      Description

J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
----	--

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> SC



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey—NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio—VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
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<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

S&amp;ME Inc. - Kennesaw GA

3380 Town Point Drive Suite 140  
Kennesaw, GA 30144

## Billing Information:

Accounts Payable  
3380 Town Point Drive Suite 140  
Kennesaw, GA 30144

Report to:

Peter Fleury

Email To:

pfleury@smeinc.com

Project:

Gainesville DOT

Description:

Phone: 770-919-0969  
Fax: 770-919-2360

Client Project #

4468-14-073A

Lab Project #

Collected by (print):  
Taylor GableCollected by Signature:  
Taylor GableImmediately  
Packed on Ice N Y

Site/Facility ID #

P.O. #

4468-14-073A

Date Results Needed

Rush? (Lab MUST Be Notified)

Same Day	200%
Next Day	100%
Two Day	50%
Three Day	25%

Email? No Yes

FAX? No Yes

No. of Ctns

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Ctns
MW-9R	Grab	GW		11-16-16	1337	4
MW-14D	Grab	GW		11-16-16	1042	4

\* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

## Analysis / Container / Preservative

Chain of Custody Page \_\_\_\_ of

  
**ESC**  
**L A B S C I E N C E S**

 12065 Lebanon Rd  
 Mount Juliet, TN 37122  
 Phone: 615-758-5856  
 Phone: 800-767-5859  
 Fax: 615-758-5859

 L# 873745  
 Ta A136

Acctnum: SMEKEN

Template:

Prelogin:

TSR: 206 - Jeff Carr

PB:

Shipped Via:

Rem /Contaminant Sample # (all or part)

01  
a

109449547295

pH Temp

Flow Other

Hold #

Relinquished by: (Signature)

Date: 11-17-16

Time: 0840

Received by: (Signature)

11/17/16

Samples returned via:  UPS FedEx  Courier 

Condition:

(List one only)

GW

Relinquished by: (Signature)

Date: 11-17-16

Time: 14:05

Received by: (Signature)

Temp: °C Bottles Received:

36.0

84

COC Seal Intact:

Y N NA

Relinquished by: (Signature)

Date: 11-18-16

Time:

Received for lab by: (Signature)

2-11

Date: 11-18-16 Time: 9:00

pH Checked:  NCF:



## Cooler Receipt Form

Client: SMEKEN	SDG#	873745	
Cooler Received/Opened On: 11/18/16	Temperature Upon Receipt:	3.6 °c	
Received By: Nikki Farmer			
Signature: 			
Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were custody papers properly filled out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did all bottles arrive in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were correct bottles used for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was sufficient amount of sample sent in each bottle?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If applicable, was an observable VOA headspace present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Non Conformance Generated. (If yes see attached NCF)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>