OCTOBER 2015 SEMI-ANNUAL VOLUNTARY REMEDIATION PLAN PROGRESS REPORT

139 Brampton Road

Savannah, Chatham County, Georgia

HSI Site No. 10208

Prepared on behalf of:

Dale Hendrix, Sr., Trustee under Trust for Benefit of Brenda Heisey
c/o Dwight Feemster, Esq
Duffy Feemster, LLC
and
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Prepared by:

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October 29, 2015

Project No. 6121-09-0220

October 29, 2015

Mr. Jason Metzger
Program Manager
Response and Remediation Program
Georgia Environmental Protection Division
2 Martin Luther King, Jr. Drive, SE
Suite 1462 East Floyd Tower
Atlanta, Georgia 30334

Subject: **October 2015 Semi-Annual Voluntary Remediation Plan Progress Report**
139 Brampton Road (Former Rheem Manufacturing)
Savannah, Chatham County, Georgia
HSI Site No. 10208 Tax Parcel ID#1-0720-01-002

Dear Mr. Metzger:

On behalf of Dale Hendrix, Sr., Trustee under Trust for Benefit of Brenda Heisey, and Rheem Manufacturing Company, Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) respectfully submits this Progress Report No.8 for the 139 Brampton Road property in Savannah, Chatham County, Georgia (HSI Site No. 10208, Tax Parcel ID#1-0720-01-002). This progress report is required by the Voluntary Remediation Program (VRP) statute and requested by the Georgia Environmental Protection Division (EPD) in its comment letter dated October 4, 2011.

This report is for the exclusive use of Mr. Dale Hendrix, Sr., Trustee under Trust for Benefit of Brenda Heisey and Rheem Manufacturing Company, and for regulatory submittal. If you have any questions and/or comments regarding the material presented in the report, please contact Mr. Chuck Ferry (404) 817-0107 or by email at chuck.ferry@amecfw.com.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

Stephen R. Foley, P.G.
Senior Geologist

Charles T. Ferry, P.E.
Senior Principal Engineer

cc: Ms. Hollister A. Hill, Troutman Sanders, LLP
Mr. Scott Bates, Rheem Manufacturing Company
Mr. Dwight Feemster, Duffy & Feemster, LLC
Mr. Chuck Steffens, Rheem Manufacturing Company

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1.0 PROJECT SUMMARY

The 139 Brampton Road Site ("Site") is an approximately 11.1-acre parcel of land located in Savannah, Chatham County, Georgia. Historically, the Site was developed in the early 1960s for the reconditioning and manufacturing of drums. Site operations continued in a similar manner by various entities until the mid-1970s when drum reconditioning activities were reported to have stopped. However, the drum manufacturing operation continued at the Site from the mid-1970s until the early 1990s. Since 1994 the Site has been occupied by various commercial tenants for warehousing and office space.

The Georgia EPD approved a Voluntary Remediation Plan Application (VRPA) with conditions and comments presented in two letters dated October 4, 2011 and accepted the 139 Brampton Road property as a "qualifying property" in the Voluntary Remediation Program (VRP).

The subject property is commercially developed with various structures which are currently leased for warehousing of wood construction products and office space. The subject property is zoned heavy industrial and is located in close proximity to the Georgia Port Authority – Garden City Terminal Container Port in Savannah, Georgia. The property has been utilized for commercial/industrial purposes for approximately five decades.

The property has been the subject of a number of environmental assessments conducted between 1985 and 2009, which revealed the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals in soil and groundwater. The property was listed on the Hazardous Site Inventory (HSI) in June 1994 as site number 10208 due to the presence of lead in soil and tetrachloroethene in groundwater.

In its October 4, 2011 VRP approval letter, EPD requested that adjacent properties, owned by McDonald Ventures LLC (to the north) and Norfolk Southern Railway Company (to the east/south), be included as additional qualifying properties based on historic groundwater sampling results. Since including these properties as qualifying properties would have been based on historic sampling results over 13 years old, the Trustee and Rheem contacted representatives of both McDonald Ventures and Norfolk Southern to negotiate access agreements to perform additional current assessments on each of their properties and to alert them that a Uniform Environmental Covenant for their property may be needed. Access was granted and sampling of existing monitoring wells along with the installation and sampling of new

wells was performed in 2013/2014 to update conditions on these properties as reported in the sixth and seventh Semi-Annual VRP Progress Reports.

A Soil Remediation Plan (SRF) was included as Appendix E to the 5th VRP Progress Report as a proposal for corrective actions to remediate impacted soils at the Site. The SRP was subsequently revised and then implemented in December 2014 with the removal of 3,011 tons of impacted soil as reported in the 7th Semi-Annual VRP Progress Report.

A preliminary groundwater fate and transport model was presented in the 1st Semi-Annual VRP Progress Report and was updated in the 5th Semi-Annual VRP Progress Report.

This 8th Semi-Annual VRP Progress Report includes a groundwater monitoring event and updates the contaminant fate and transport model.

2.0 ACTIONS TAKEN SINCE LAST SUBMITTAL

The activities that have been performed since submittal of the 7th Semi-Annual VRP Progress Report dated April 30, 2015 are described in the following sections.

2.1 ADDITIONAL ASSESSMENT ACTIVITIES

The additional assessment activities completed during the most recent six-month period include the monitoring of groundwater conditions within the monitoring well network, and an update of the groundwater fate and transport model. Sampling and analysis of groundwater from five on-site wells (EW-1, EW-2, GW-1, GW-7, and W-5) and eight off-site wells (EW-3, EW-4, EW-5, EW-6, EW-7, GW-4, GW-5, and GW-10) was performed during this monitoring event. All downhole equipment, tools and materials were decontaminated prior to use and between each boring to minimize the potential for introduced and/or cross contamination. Decontamination of equipment and appropriate sampling protocols were observed throughout the drilling operation to preclude the introduction of contaminants. The field work was supervised by environmental professionals and the work was conducted under the provisions of our Health and Safety Plan.

2.1.1 Groundwater Sampling and Testing

Prior to sampling, the wells were purged to remove sediment and allow representative formation water to more easily enter the well. Groundwater quality parameters including temperature, pH, specific conductance and turbidity were monitored and are summarized on the attached field data sheets in Appendix B. Well development continued until these parameters had stabilized and a minimum of three well volumes of water were removed. Samples were collected immediately following purging/development using the “straw” method and were placed in containers provided by the laboratory, packed on ice and were maintained under chain-of-custody control from the time they were collected until they were released to the laboratory.

The groundwater samples were tested for the presence of VOCs (EPA Method 8260B). In addition, groundwater samples from EW-1, GW-1, and W-5 were also analyzed for natural attenuation parameters, including: total organic carbon, ferrous iron, alkalinity, ethane, ethylene, methane, nitrate, nitrite, sulfate, sulfide, and chloride. The results of the current monitoring event are summarized on the attached Table 2 and graphically depicted on Figure 2. Complete laboratory analysis reports can be found in Appendix A.

No VOCs were detected in the on-site wells EW-1, GW-1, and GW-7 or in the off-site wells EW-3, EW-4, EW-5, GW-4 and GW-5. The following chlorinated volatile organic compounds (CVOCs) were detected in two on-site wells (EW-2, and W-5) and three off-site wells (EW-6, EW-7 and GW-10): tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2 dichloroethene (cis-DCE), 1,2 dichloroethane (1,2-DCA), 1,1-dichloroethene (1,1-DCE), and/or 1,1 dichloroethane (1,1-DCA). Concentrations of PCE, TCE and 1,1-DCE were detected above their respective default Type 1 RRS in two on-site wells (EW-2 and W-5). Concentrations of TCE and 1,1-DCE were detected above their respective default Type 1 RRS in two off-site wells (EW-6 and EW-7). 1,1-DCE was below its default Type 2 RRS in each case. Refer to the following table.

Constituent	Location	Concentration µg/L	Default Type 1 RRS, µg/L	Default Type 2 RRS, µg/L
1,1-dichloroethene	EW-6 (NS)	13.2	7	100
	EW-7 (NS)	14.4		
	W-5 (Site)	48.6		
tetrachloroethene	EW-2 (Site)	31.2	5	19
	W-5 (Site)	59.5		
trichloroethene	EW-2 (Site)	21	5	1
	EW-7 (NS)	7.4		
	W-5 (Site)	34		

NS – Norfolk Southern property
Site – Subject Property

The CVOC concentrations detected were generally comparable to those observed during the previous sampling event in 2014 with some concentrations slightly higher than previously observed while others were lower. CVOC concentrations nearest the source area were observed to have decreased the most, while those farther downgradient tended to increase somewhat, particularly among the PCE degradation products.

Natural attenuation parameters were monitored in EW-1, W-5 and GW-1. The presence of ferrous iron and methane, along with low concentrations of nitrate in two of three wells support the observation of degradation of CVOCs within the groundwater plume. These conditions are confirmed by the presence of PCE degradation products and the absence of PCE in the downgradient wells.

2.1.2 Groundwater Elevation

Prior to sampling, the depth to groundwater from the top of each well casing was measured by Amec Foster Wheeler in all monitoring wells to be sampled. The water level data, along with well construction data are tabulated in Table 3. The groundwater depths were used to develop the groundwater elevation contours presented on the attached potentiometric surface map (see Figure 4). The groundwater elevations and the interpreted groundwater flow direction indicate that groundwater flow across the Site is generally east-southeast towards the Dundee Canal, consistent with previous findings.

2.1.3 Fate and Transport Modeling

As documented in previous submittals, the Site and surrounding properties are zoned heavy industrial and are connected to a municipal water supply source. In 2009, AMEC assessed the potential presence of drinking water wells in the area of the Site using publicly available sources of pertinent information. The locations of twenty-one potential groundwater wells, nineteen of which are industrial water supply wells, were identified within a two-mile radius of the Site. However, based on the demonstrated groundwater flow direction to the east-southeast, no drinking water wells exist in the down gradient flow path of the contaminant plume.

Additionally, the Site lies in a hydrogeologic setting where groundwater typically consists of an unconfined surficial aquifer, underlain by an upper confining unit and the Floridan aquifer. Regional hydrogeologic conditions at the Site and surrounding areas indicate the first potable water is found in the Upper Floridan aquifer at least 300 feet below the site elevation. This aquifer is separated by an approximately 200 feet thick confining unit of the Floridan aquifer.

Under the VRP, "point of exposure" means the nearest of the closest existing down gradient drinking water supply well, the likely nearest future location of a drinking water well, or a hypothetical point of drinking water exposure located at a distance of 1000 feet down gradient from the delineated site contamination. Because there is no evidence of a potential drinking water source in the down gradient flow path of the contaminant plume, the relevant “point of exposure” for modeling purposes becomes a hypothetical point of drinking water exposure located at a distance of 1,000 feet down-gradient of the delineated site contamination in the surficial aquifer. However, a surface water body, Dundee Canal, is located approximately 1,100 feet southeast from the estimated source location, and it acts as a physical barrier to further migration of dissolved phase contamination. As such, the Dundee Canal was used as the location of the

nearest down gradient potential receptor for the purpose of modeling contaminant transport. There is no evidence to suggest that the Dundee Canal is used as a drinking water source.

As documented in the April 30, 2012 (1st) Semi-Annual Report, the BIOCHLOR software was utilized to model the fate and transport of impacted groundwater in the shallow aquifer and the potential impact to the down-gradient Dundee Canal. The preliminary model results conservatively predicted the groundwater plume emanating from the Site would reach Dundee Canal, but at constituent concentrations below drinking water and in-stream standards.

In this report, Amec Foster Wheeler has updated the previous fate and transport model utilizing the additional off-site data collected during this progress period to further validate the predicted plume migration toward the Dundee Canal.

The source of dissolved CVOCs in groundwater at the Site is thought to be in close proximity to the former monitoring well W-4 which exhibited the highest concentration of PCE of 1,800 µg/l on November 6, 1987. However, subsequent analytical results for W-4 and EW-2 (located in close proximity to W-4) reveal a steady decline in PCE concentrations (W-4 at 150 µg/l in 1997 and EW-2 at 76 µg/l in 2012) which indicate that an ongoing source of groundwater contamination does not exist. This conclusion is supported by historical soil testing data in the area which did not identify significant soil impacts. A summary of the historic on-site groundwater testing results along with the well locations is included on Figure 3.

In order to calibrate the model to the field-observed concentrations of PCE, it was necessary to consider the concentrations in the source zone represented by W-4, which exhibited the highest historical concentration of PCE, for some time prior to the first reporting of PCE in 1987. As previously documented, the Site was developed in 1963 and operated as a drum reconditioning facility until 1974 and a drum manufacturing facility until the early 1990s. Although a release to soil and groundwater was first discovered at the Site in 1987, it is reasonable to conclude that a release could have occurred years before that time.

The model was further calibrated by inputting known parameters such as hydraulic conductivity and hydraulic gradient and groundwater CVOC concentrations measured within the source area and the downgradient wells. Typical literature values and/or default values in BIOCHLOR for dispersion, absorption and biotransformation rates were used in the model calculations and adjusted until the constituent distribution curves reasonably matched the groundwater conditions measured at the Site.

The BIOCHLOR model from the April 2012 1st Progress Report was reevaluated in the April 2014 VRP Progress Report. The results confirmed that CVOCs would not impact Dundee Canal at concentrations exceeding the Georgia In-stream Water Quality Standards.

The BIOCHLOR model was again reassessed utilizing the more extensive groundwater data collected during this reporting period. Based on an initial release 48 years ago (1967), as illustrated on the model outputs in Appendix C, the current model predicts the groundwater plume conditions for PCE, TCE, DCE and vinyl chloride over the next 50 years.

As shown on the Biochlor outputs, the predicted concentrations are well below the Georgia In-stream Water Quality Standards at the Dundee Canal and only slightly exceed the default Type 1 RRS for TCE at the point of demonstration well EW-7. CVOCs, including TCE, are not predicted to reach Dundee Canal above their default Type I RRS. Based on current model inputs, the concentration of TCE in EW-7 should currently be at or near its maximum value and is expected to steadily decline from this point forward. Based on the model predictions for the next 50 years, the groundwater plume will not impact the Dundee Canal at concentrations above the In-stream Water Quality Standards and should decrease to a concentration at the EW-7 point of demonstration below the default Type 1 RRS within approximately 20 years.

The model results along with the model input parameters are included in Appendix C.

No other activities have been performed since submittal of the 7th Semi-Annual Voluntary Remediation Plan Progress Report dated April 30, 2015.

3.0 SUMMARY OF FINDINGS

Based on the information documented in this and the seven previous VRP Progress Reports, we summarize the findings as follows:

- Soil conditions exceeding applicable RRS have been remediated.
- Groundwater impacts have been delineated to Type 1 RRS or demonstrated by modeling in the down-gradient direction.
- There are no predicted impacts to drinking water sources.
- There are no predicted impacts to surface waters.
- Degradation of the groundwater plume is occurring through natural attenuation processes.
- The plume is stable based on test results spanning from 1997 to 2015.
- An evaluation of the potential for vapor intrusion has determined there is no risk or hazard exceeding regulatory exposure limits for occupational receptors of on-site or off-site structures.

4.0 FUTURE SUBMITTALS

As required by EPD, semi-annual progress reports must be submitted to EPD by every April 30th and October 30th throughout the duration of this project. Upcoming activities planned for the next semi-annual period include the completion of another groundwater monitoring event and an update of the fate and transport model. Based on the activities completed to date and our findings, Amec Foster Wheeler proposes to prepare a Compliance Status Report for submittal to GA-EPD by April 30, 2016, which will constitute the ninth and final VRP Semi-Annual Progress Report.

5.0 PROFESSIONAL ENGINEER CERTIFICATION STATEMENT

"I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Mr. Stephen R. Foley, P. G.
Georgia Registration No. 1057

STEPHEN ROBERT FOLEY
No. 001057
GEORGIA REGISTERED PROFESSIONAL GEOLOGIST

A breakdown of professional service hours with a description of the services provided is included in Appendix D.

TABLES

139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: Sample Date: Sample Matrix: Units:	W-2 11/6/1987 Groundwater µg/L	W-2 1993 µg/L	W-3 11/6/1987 Groundwater µg/L	W-4 11/6/1987 Groundwater µg/L	W-4 11/19/1987 Groundwater µg/L	W-4 2/12/1997 Groundwater µg/L
Volatile Organic Compounds (VOCs)								
1,1,1-Trichloroethane	200		**18**	**40**	**9**	BDL	BDL	<5.0
1,1,2-Trichloroethane	5		--	--	--	--	--	<5.0
1,1-Dichloroethane	4000		**24**	**41**	**20**	**130**	**88**	**50**
1,1-Dichloroethene	7		**25**	**485**	**8.8**	**36**	**130**	**45**
1,2-Dichloroethane	5		BDL	BDL	BDL	BDL	BDL	<5.0
1,2-Dichloroethene	100		BDL	BDL	BDL	BDL	BDL	**11**
1,2-Dichlorobenzene	600		BDL	BDL	**40**	BDL	**1.1**	<5.0
Benzene	5		BDL	**15**	**12**	**14**	**5.5**	**47**
Carbon Tetrachloride	5		BDL	BDL	BDL	BDL	**6.2**	<5.0
Chlorobenzene	100		BDL	BDL	**11**	BDL	**9**	<5.0
Chloroform	100		--	--	--	--	--	--
cis-1,2-Dichloroethene	70		--	--	--	--	--	--
Dibromochloromethane	80.000		--	--	--	--	--	--
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL	<5.0
Methylene Chloride	5		**6.7**	BDL	BDL	BDL	BDL	<5.0
Methyl tert-butyl ether			--	--	--	--	--	--
Styrene	100		--	--	--	--	--	--
Tetrachloroethene	5		**5.9**	BDL	BDL	**1800**	**1000**	**150**
Toluene	1000		**19**	BDL	BDL	BDL	BDL	<5.0
trans-1,2-Dichloroethene	100		**93**	BDL	**100**	**30**	**30**	--
Trichloroethene	5		**7.7**	BDL	**95**	**40**	**39**	**38**
Vinyl chloride (lifetime)	2		**24**	**22.8**	**3.6**	BDL	**8.5**	<10
Xylenes, mixture	10000		BDL	BDL	BDL	BDL	BDL	<10
Metals								
Arsenic	10		--	--	--	--	--	--
Barium	2000		**350**	--	**280**	**520**	--	--
Cadmium	5		--	--	--	--	--	--
Chromium	100		--	--	--	--	--	--
Lead	15		**20**	--	**40**	BDL	--	--
Mercury	2		--	7	--	--	--	--
Selenium	50		--	--	--	--	--	--
Silver	100		--	--	--	--	--	--

Notes:
Bold = Constituent has been detected at or above the reporting limit.
-- = Not Analyzed and/or Not Reported
BDL = Below Dection Limit as reported by Golder & Associaties

139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: Sample Date: Sample Matrix: Units:	W-4 (DUP) 2/12/1997 Groundwater µg/L	W-5 11/6/1987 Groundwater µg/L	W-5 1993 Groundwater µg/L	W-5 2/12/1997 Groundwater µg/L	W-5 3/8/2012 Groundwater µg/L		W-5 8/13/2015 Groundwater µg/L
Volatile Organic Compounds (VOCs)									
1,1,1-Trichloroethane	200		<5.0	BDL	BDL	<5.0	<5.0		<1.0
1,1,2-Trichloroethane	5		<5.0	--	--	**7**	<5.0		<1.0
1,1-Dichloroethane	4000		**48**	**9.7**	**127.7**	**19**	**28**		**16.3**
1,1-Dichloroethene	7		**43**	**44**	BDL	**110**	**70**		**48.6**
1,2-Dichloroethane	5		<5.0	BDL	BDL	**12**	<5.0		**1.93**
1,2-Dichloroethene	100		**10**	BDL	BDL	<5.0	<5.0		<1.0
1,2-Dichlorobenzene	600		BDL	BDL	BDL	--	<5.0		<1.0
Benzene	5		**47**	BDL	BDL	**8.4**	<5.0		<1.0
Carbon Tetrachloride	5		<5.0	BDL	BDL	<5.0	<5.0		<1.0
Chlorobenzene	100		<5.0	BDL	BDL	<5.0	<5.0		<1.0
Chloroform	100		--	--	--	<5.0	<5.0		<1.0
cis-1,2-Dichloroethene	70		--	--	--	--	**6.3**		**4.38**
Dibromochloromethane	80.000		--	--	--	--	<5.0		<1.0
Ethylbenzene	700		<5.0	BDL	BDL	<5.0	<5.0		<1.0
Methylene Chloride	5		<5.0	BDL	BDL	<5.0	<5.0		<1.0
Methyl tert-butyl ether			--	--	--	--	<5.0		<2.0
Styrene	100		--	--	--	<5.0	<5.0		<1.0
Tetrachloroethene	5		**140**	**12**	**26.6**	**16**	**120**		**59.5**
Toluene	1000		<5.0	BDL	BDL	<5.0	<5.0		<1.0
trans-1,2-Dichloroethene	100		--	BDL	BDL	--	<5.0		<1.0
Trichloroethene	5		**37**	BDL	BDL	<5.0	**57**		**34**
Vinyl chloride (lifetime)	2		<10	BDL	BDL	<10	<5.0		<1.0
Xylenes, mixture	10000		<10	BDL	BDL	<10	<5.0		<2.0
Metals							Total	Diss.	
Arsenic	10		--	--	--	--	<50	<50	--
Barium	2000		--	**200**	--	--	**33.3**	**31.8**	--
Cadmium	5		--	--	--	--	<5	<5	--
Chromium	100		--	--	--	--	<10	<10	--
Lead	15		--	BDL	--	--	<10	<10	--
Mercury	2		--	--	--	--	<0.2	<0.2	--
Selenium	50		--	--	--	--	<20	<20	--
Silver	100		--	--	--	--	<10	<10	--

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SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: Sample Date: Sample Matrix: Units:	W-6 11/6/1987 Groundwater µg/L	W-6 1993 Groundwater µg/L	P-2 1993 Groundwater µg/L	P-2 1997 Groundwater µg/L	MW-5 1993 Groundwater µg/L
Volatile Organic Compounds (VOCs)							
1,1,1-Trichloroethane	200		BDL	BDL	BDL	BDL	BDL
1,1,2-Trichloroethane	5		--	--	--	--	--
1,1-Dichloroethane	4000		**3**	BDL	**65.5**	**33**	BDL
1,1-Dichloroethene	7		BDL	BDL	**90.7**	**23**	BDL
1,2-Dichloroethane	5		BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethene	100		BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	600		BDL	BDL	BDL	BDL	BDL
Benzene	5		BDL	BDL	BDL	BDL	BDL
Carbon Tetrachloride	5		BDL	BDL	BDL	BDL	BDL
Chlorobenzene	100		BDL	BDL	BDL	BDL	BDL
Chloroform	100		--	--	--	--	--
cis-1,2-Dichloroethene	70		--	--	--	--	--
Dibromochloromethane	80.000		--	--	--	--	--
Ethylbenzene	700		BDL	BDL	BDL	BDL	BDL
Methylene Chloride	5		BDL	BDL	BDL	BDL	BDL
Methyl tert-butyl ether			--	--	--	--	--
Styrene	100		--	--	--	--	--
Tetrachloroethene	5		BDL	BDL	BDL	BDL	BDL
Toluene	1000		BDL	BDL	BDL	BDL	BDL
trans-1,2-Dichloroethene	100		**3.9**	BDL	BDL	BDL	BDL
Trichloroethene	5		**17**	**6.6**	BDL	BDL	BDL
Vinyl chloride (lifetime)	2		BDL	BDL	BDL	BDL	BDL
Xylenes, mixture	10000		BDL	BDL	BDL	BDL	BDL
Metals							
Arsenic	10		--	--	--	--	--
Barium	2000		**520**	--	--	--	--
Cadmium	5		--	--	--	--	--
Chromium	100		--	--	--	--	--
Lead	15		**10**	--	--	--	--
Mercury	2		--	--	--	--	--
Selenium	50		--	--	--	--	--
Silver	100		--	--	--	--	--

Notes:
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139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: Sample Date: Sample Matrix: Units:	MW-5 1997 Groundwater µg/L	GW-1 2/13/1997 Groundwater µg/L	GW-1 3/8/2012 Groundwater µg/L		GW-1 8/13/2015 Groundwater µg/L	GW-2 3/27/1997 Groundwater µg/L	GW-3 2/12/1997 Groundwater µg/L
Volatile Organic Compounds (VOCs)									
1,1,1-Trichloroethane	200		BDL	<5.0	<5.0		<1.0	<5.0	**7.6**
1,1,2-Trichloroethane	5		--	--	<5.0		<1.0	--	--
1,1-Dichloroethane	4000		**5.4**	<5.0	<5.0		<1.0	<5.0	**140**
1,1-Dichloroethene	7		BDL	<5.0	<5.0		<1.0	<5.0	**210**
1,2-Dichloroethane	5		BDL	<5.0	<5.0		<1.0	<5.0	**7.3**
1,2-Dichloroethene	100		BDL	<5.0	<5.0		<1.0	<5.0	**64**
1,2-Dichlorobenzene	600		BDL	<5.0	<5.0		<1.0	<5.0	<5.0
Benzene	5		BDL	<5.0	<5.0		<1.0	<5.0	**17**
Carbon Tetrachloride	5		BDL	<5.0	<5.0		<1.0	<5.0	<5.0
Chlorobenzene	100		BDL	<5.0	<5.0		<1.0	<5.0	**18**
Chloroform	100		--	--	<5.0		<1.0	--	--
cis-1,2-Dichloroethene	70		--	--	<5.0		<1.0	--	--
Dibromochloromethane	80.000		--	--	<5.0		<1.0	--	--
Ethylbenzene	700		BDL	<5.0	<5.0		<1.0	<5.0	**21**
Methylene Chloride	5		BDL	<5.0	<5.0		<1.0	<5.0	<5.0
Methyl tert-butyl ether			--	--	<5.0		<2.0	--	--
Styrene	100		--	<5.0	<5.0		<1.0	<5.0	**5.9**
Tetrachloroethene	5		BDL	**23**	<5.0		<1.0	<5.0	**400**
Toluene	1000		BDL	<5.0	<5.0		<1.0	<5.0	<5.0
trans-1,2-Dichloroethene	100		BDL	<5.0	<5.0		<1.0	<5.0	<5.0
Trichloroethene	5		BDL	**11**	<5.0		<1.0	<5.0	**49**
Vinyl chloride (lifetime)	2		BDL	<10	<5.0		<1.0	<10	<10
Xylenes, mixture	10000		BDL	<10	<5.0		<2.0	<10	**24**
Metals					Total	Diss.			
Arsenic	10		--	--	<50	<50	--	--	--
Barium	2000		--	--	**34.1**	**26.2**	--	--	--
Cadmium	5		--	--	<5	<5	--	--	--
Chromium	100		--	--	<10	<10	--	--	--
Lead	15		--	--	<10	<10	--	--	--
Mercury	2		--	--	<0.2	<0.2	--	--	--
Selenium	50		--	--	<20	<20	--	--	--
Silver	100		--	--	<10	<10	--	--	--

Notes:
Bold = Constituent has been detected at or above the reporting limit.
-- = Not Analyzed and/or Not Reported
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139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: Sample Date: Sample Matrix: Units:	GW-4 1998 Groundwater µg/L	GW-4 2/13/2014 Groundwater µg/L	GW-4 8/12/2015 Groundwater µg/L	GW-5 1998 Groundwater µg/L	GW-5 2/13/2014 Groundwater µg/L	GW-5 8/12/2015 Groundwater µg/L
Volatile Organic Compounds (VOCs)								
1,1,1-Trichloroethane	200		BDL	<1.0	<1.0	BDL	<1.0	<1.0
1,1,2-Trichloroethane	5		--	<1.0	<1.0	--	<1.0	<1.0
1,1-Dichloroethane	4000		BDL	<1.0	<1.0	BDL	<1.0	<1.0
1,1-Dichloroethene	7		BDL	<1.0	<1.0	BDL	<1.0	<1.0
1,2-Dichloroethane	5		BDL	<1.0	<1.0	BDL	<1.0	<1.0
1,2-Dichloroethene	100		BDL	<1.0	<1.0	BDL	<1.0	<1.0
1,2-Dichlorobenzene	600		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Benzene	5		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Carbon Tetrachloride	5		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Chlorobenzene	100		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Chloroform	100		--	<1.0	<1.0	--	<1.0	<1.0
cis-1,2-Dichloroethene	70		--	<1.0	<1.0	--	<1.0	<1.0
Dibromochloromethane	80.000		--	<1.0	<1.0	--	<1.0	<1.0
Ethylbenzene	700		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Methylene Chloride	5		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Methyl tert-butyl ether			--	<2.0	<2.0	--	<2.0	<2.0
Styrene	100		--	<1.0	<1.0	--	<1.0	<1.0
Tetrachloroethene	5		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Toluene	1000		BDL	<1.0	<1.0	BDL	<1.0	<1.0
trans-1,2-Dichloroethene	100		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Trichloroethene	5		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Vinyl chloride (lifetime)	2		BDL	<1.0	<1.0	BDL	<1.0	<1.0
Xylenes, mixture	10000		BDL	<2.0	<2.0	BDL	<2.0	<2.0
Metals								
Arsenic	10		--	--	--	--	--	--
Barium	2000		--	--	--	--	--	--
Cadmium	5		--	--	--	--	--	--
Chromium	100		--	--	--	--	--	--
Lead	15		--	--	--	--	--	--
Mercury	2		--	--	--	--	--	--
Selenium	50		--	--	--	--	--	--
Silver	100		--	--	--	--	--	--

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139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: Sample Date: Sample Matrix: Units:	GW-7 10/7/1999 Groundwater µg/L	GW-7 3/8/2012 Groundwater µg/L		GW-7 2/13/2014 Groundwater µg/L	GW-7 8/13/2015 Groundwater µg/L	GW-8 10/7/1999 Groundwater µg/L	GW-9 10/7/1999 Groundwater µg/L
Volatile Organic Compounds (VOCs)									
1,1,1-Trichloroethane	200		<5.0	<5.0		--	<1.0	<5.0	<5.0
1,1,2-Trichloroethane	5		--	<5.0		--	<1.0	--	--
1,1-Dichloroethane	4000		<5.0	<5.0		--	<1.0	<5.0	**28**
1,1-Dichloroethene	7		<5.0	<5.0		--	<1.0	<5.0	**39**
1,2-Dichloroethane	5		<5.0	<5.0		--	<1.0	<5.0	<5.0
1,2-Dichloroethene	100		<5.0	<5.0		--	<1.0	<5.0	**9.1**
1,2-Dichlorobenzene	600		<5.0	<5.0		--	<1.0	<5.0	<5.0
Benzene	5		<5.0	<5.0		--	<1.0	<5.0	**8**
Carbon Tetrachloride	5		<5.0	<5.0		--	<1.0	<5.0	<5.0
Chlorobenzene	100		<5.0	<5.0		--	<1.0	<5.0	<5.0
Chloroform	100		--	<5.0		--	<1.0	**13**	<5.0
cis-1,2-Dichloroethene	70		--	<5.0		--	<1.0	--	--
Dibromochloromethane	80.000		--	<5.0		--	<1.0	--	--
Ethylbenzene	700		**5.2**	<5.0		--	<1.0	<5.0	<5.0
Methylene Chloride	5		<5.0	<5.0		--	<1.0	<5.0	<5.0
Methyl tert-butyl ether			--	<5.0		--	<2.0	--	--
Styrene	100		--	<5.0		--	<1.0	--	--
Tetrachloroethene	5		<5.0	<5.0		--	<1.0	<5.0	**24**
Toluene	1000		<5.0	<5.0		--	<1.0	<5.0	<5.0
trans-1,2-Dichloroethene	100		<5.0	<5.0		--	<1.0	<5.0	<5.0
Trichloroethene	5		<5.0	<5.0		--	<1.0	<5.0	**12**
Vinyl chloride (lifetime)	2		<10	<5.0		--	<1.0	<10	<10
Xylenes, mixture	10000		**68**	**230**		<2.0	<2.0	<10	<10
Metals				Total	Diss.				
Arsenic	10		--	<50	<50	--	--	--	--
Barium	2000		--	<20	<20	--	--	--	--
Cadmium	5		--	<5	<5	--	--	--	--
Chromium	100		--	<10	<10	--	--	--	--
Lead	15		--	<10	<10	--	--	--	--
Mercury	2		--	<0.2	<0.2	--	--	--	--
Selenium	50		--	<20	<20	--	--	--	--
Silver	100		--	<10	<10	--	--	--	--

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139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: / Sample Date: / Sample Matrix: / Units:	GW-9 3/20/2013 Groundwater µg/L	GW-10 10/7/1999 Groundwater µg/L	GW-10 2/13/2014 Groundwater µg/L	GW-10 8/12/2015 Groundwater µg/L	GW-11 10/7/1999 Groundwater µg/L	EW-1 3/8/2012 Groundwater µg/L	
Volatile Organic Compounds (VOCs)									
1,1,1-Trichloroethane	200		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
1,1,2-Trichloroethane	5		<1.0	--	<1.0	<1.0	<5.0	<5.0	
1,1-Dichloroethane	4000		**6.14**	<5.0	<1.0	<1.0	<5.0	<5.0	
1,1-Dichloroethene	7		**15**	<5.0	<1.0	<1.0	<5.0	<5.0	
1,2-Dichloroethane	5		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
1,2-Dichloroethene	100		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
1,2-Dichlorobenzene	600		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
Benzene	5		**1.22**	<5.0	<1.0	<1.0	<5.0	<5.0	
Carbon Tetrachloride	5		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
Chlorobenzene	100		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
Chloroform	100		<1.0	**7.8**	<1.0	<1.0	<5.0	<5.0	
cis-1,2-Dichloroethene	70		<1.0	--	<1.0	**1.23**	--	<5.0	
Dibromochloromethane	80.000		<1.0	--	<1.0	<1.0	--	<5.0	
Ethylbenzene	700		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
Methylene Chloride	5		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
Methyl tert-butyl ether			<2.0	--	<2.0	<2.0	--		
Styrene	100		<1.0	--	<1.0	<1.0	--	<5.0	
Tetrachloroethene	5		**5.51**	<5.0	**1.17**	**4.44**	<5.0	<5.0	
Toluene	1000		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
trans-1,2-Dichloroethene	100		<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	
Trichloroethene	5		**1.65**	<5.0	**2.55**	**3**	<5.0	<5.0	
Vinyl chloride (lifetime)	2		<1.0	<10	<1.0	<1.0	<10	<5.0	
Xylenes, mixture	10000		<2.0	<10	<2.0	<2.0	<10	<5.0	
Metals								Total	Diss.
Arsenic	10		--	--	--	--	--	<50	<50
Barium	2000		--	--	--	--	--	**74**	**68.5**
Cadmium	5		--	--	--	--	--	<5	<5
Chromium	100		--	--	--	--	--	<10	<10
Lead	15		--	--	--	--	--	<10	<10
Mercury	2		--	--	--	--	--	<0.2	<0.2
Selenium	50		--	--	--	--	--	<20	<20
Silver	100		--	--	--	--	--	<10	<10

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139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: Sample Date: Sample Matrix: Units:	EW-1 8/13/2015 Groundwater µg/L	EW-2 3/7/2012 Groundwater µg/L		EW-2 8/13/2015 Groundwater µg/L	EW-3 3/20/2013 Groundwater µg/L	EW-3 8/11/2015 Groundwater µg/L
Volatile Organic Compounds (VOCs)								
1,1,1-Trichloroethane	200		<1.0	<5.0		<1.0	<1.0	<1.0
1,1,2-Trichloroethane	5		<1.0	<5.0		<1.0	<1.0	<1.0
1,1-Dichloroethane	4000		<1.0	**5.7**		**3.79**	<1.0	<1.0
1,1-Dichloroethene	7		<1.0	**7.7**		**6.34**	<1.0	<1.0
1,2-Dichloroethane	5		<1.0	<5.0		<1.0	<1.0	<1.0
1,2-Dichloroethene	100		<1.0	<5.0		<1.0	<1.0	<1.0
1,2-Dichlorobenzene	600		<1.0	<5.0		<1.0	<1.0	<1.0
Benzene	5		<1.0	<5.0		<1.0	<1.0	<1.0
Carbon Tetrachloride	5		<1.0	<5.0		<1.0	<1.0	<1.0
Chlorobenzene	100		<1.0	<5.0		<1.0	<1.0	<1.0
Chloroform	100		<1.0	<5.0		<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	70		<1.0	**16**		**10.5**	<1.0	<1.0
Dibromochloromethane	80.000		<1.0	<5.0		<1.0	<1.0	<1.0
Ethylbenzene	700		<1.0	<5.0		<1.0	<1.0	<1.0
Methylene Chloride	5		<1.0	<5.0		<1.0	<1.0	<1.0
Methyl tert-butyl ether			<2.0	**5.1**		<2.0	<2.0	<2.0
Styrene	100		<1.0	<5.0		<1.0	<1.0	<1.0
Tetrachloroethene	5		<1.0	**76**		**31.2**	<1.0	<1.0
Toluene	1000		<1.0	<5.0		<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100		<1.0	<5.0		<1.0	<1.0	<1.0
Trichloroethene	5		<1.0	**51**		**21**	<1.0	<1.0
Vinyl chloride (lifetime)	2		<1.0	<5.0		<1.0	<1.0	<1.0
Xylenes, mixture	10000		<2.0	<5.0		<2.0	<2.0	<2.0
Metals				Total	Diss.			
Arsenic	10		--	<50	<50	--	--	--
Barium	2000		--	**74.1**	**56.5**	--	--	--
Cadmium	5		--	<5	<5	--	--	--
Chromium	100		--	<10	<10	--	--	--
Lead	15		--	<10	<10	--	--	--
Mercury	2		--	<0.2	<0.2	--	--	--
Selenium	50		--	<20	<20	--	--	--
Silver	100		--	<10	<10	--	--	--

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139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: Sample Date: Sample Matrix: Units:	EW-4 2/12/2014 Groundwater µg/L	EW-4 8/11/2015 Groundwater µg/L	EW-5 2/12/2014 Groundwater µg/L	EW-5 8/12/2015 Groundwater µg/L	EW-6 2/12/2014 Groundwater µg/L	EW-6 8/12/2015 Groundwater µg/L
Volatile Organic Compounds (VOCs)								
1,1,1-Trichloroethane	200		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	5		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	4000		<1.0	<1.0	<1.0	<1.0	**2.16**	**8.29**
1,1-Dichloroethene	7		<1.0	<1.0	<1.0	<1.0	**2.82**	**13.2**
1,2-Dichloroethane	5		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethene	100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	600		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene	5		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	5		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	70		<1.0	<1.0	<1.0	<1.0	<1.0	**1.85**
Dibromochloromethane	80.000		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	5		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl tert-butyl ether			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Styrene	100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	100		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	5		<1.0	<1.0	<1.0	<1.0	<1.0	**2.35**
Vinyl chloride (lifetime)	2		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, mixture	10000		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Metals								
Arsenic	10		--	--	--	--	--	--
Barium	2000		--	--	--	--	--	--
Cadmium	5		--	--	--	--	--	--
Chromium	100		--	--	--	--	--	--
Lead	15		--	--	--	--	--	--
Mercury	2		--	--	--	--	--	--
Selenium	50		--	--	--	--	--	--
Silver	100		--	--	--	--	--	--

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139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 1 - CUMULATIVE SUMMARY OF GROUNDWATER DATA

PARAMETER	Type 1 Risk Reduction Standard µg/L	Sample ID: Sample Date: Sample Matrix: Units:	EW-7 2/12/2014 Groundwater µg/L	EW-7 8/12/2015 Groundwater µg/L
Volatile Organic Compounds (VOCs)				
1,1,1-Trichloroethane	200		<1.0	<1.0
1,1,2-Trichloroethane	5		<1.0	<1.0
1,1-Dichloroethane	4000		**3.72**	**5.06**
1,1-Dichloroethene	7		**10.7**	**14.4**
1,2-Dichloroethane	5		<1.0	<1.0
1,2-Dichloroethene	100		<1.0	<1.0
1,2-Dichlorobenzene	600		<1.0	<1.0
Benzene	5		<1.0	<1.0
Carbon Tetrachloride	5		<1.0	<1.0
Chlorobenzene	100		<1.0	<1.0
Chloroform	100		<1.0	<1.0
cis-1,2-Dichloroethene	70		<1.0	**6.19**
Dibromochloromethane	80.000		<1.0	<1.0
Ethylbenzene	700		<1.0	<1.0
Methylene Chloride	5		<1.0	<1.0
Methyl tert-butyl ether			<2.0	<2.0
Styrene	100		<1.0	<1.0
Tetrachloroethene	5		<1.0	<1.0
Toluene	1000		<1.0	<1.0
trans-1,2-Dichloroethene	100		<1.0	<1.0
Trichloroethene	5		**4.34**	**7.4**
Vinyl chloride (lifetime)	2		<1.0	<1.0
Xylenes, mixture	10000		<2.0	<2.0
Metals				
Arsenic	10		--	--
Barium	2000		--	--
Cadmium	5		--	--
Chromium	100		--	--
Lead	15		--	--
Mercury	2		--	--
Selenium	50		--	--
Silver	100		--	--

Notes:
Bold = Constituent has been detected at or above the reporting limit.
-- = Not Analyzed and/or Not Reported
BDL = Below Dection Limit as reported by Golder & Associaties

139 BRAMPTON ROAD SITE
SAVANNAH, GEORGIA

TABLE 2 - SUMMARY OF NATURAL ATTENUATION PARAMETERS

Well ID	**EW-1**	**W-5**	**GW-1**	**HA-1**	**HA-2**	**HA-3**
Sample Matrix	**Water**	**Water**	**Water**	**Soil**	**Soil**	**Soil**
Sample Date	8/13/2015	8/13/2015	8/13/2015	8/13/2015	8/13/2015	8/13/2015
Units	mg/L	mg/L	mg/L	mg/kg	mg/kg	mg/kg
Field Measured Parameters						
pH	4.95	4.76	4.7	NA	NA	NA
Specific Conductivity, mS/cm	0.187	0.231	0.125	NA	NA	NA
ORP, mV	274	92	342	NA	NA	NA
Dissolved Oxygen, mg/L	3.37	0.06	0	NA	NA	NA
Temperature, °C	23.83	20.03	21.32	NA	NA	NA
Laboratory Measured Parameters						
Total Organic Carbon	**1.31**	**5.44**	**1.31**	**331**	**2420**	**19000**
Ferrous Iron	<0.05	**0.16**	<0.05	NA	NA	NA
Alkalinity	<4.0	<4.0	<4.0	NA	NA	NA
Ethane	<0.002	<0.002	<0.002	NA	NA	NA
Ethene	<0.002	<0.002	<0.002	NA	NA	NA
Methane	**0.00323**	**0.0286**	**0.00277**	NA	NA	NA
Nitrate	<0.25	<0.25	**4.78**	NA	NA	NA
Nitrite	<0.25	<0.25	<0.25	NA	NA	NA
Sulfate	**35.4**	**73.8**	**13.5**	NA	NA	NA
Sulfide	<2.0	<2.0	<2.0	NA	NA	NA
Chloride	**29.6**	**17.2**	**13**	NA	NA	NA

Notes:
mS/cm - mircoSiemens per centimeter
mV - millivolts
mg/L - milligrams per liter
°C - degrees celsius

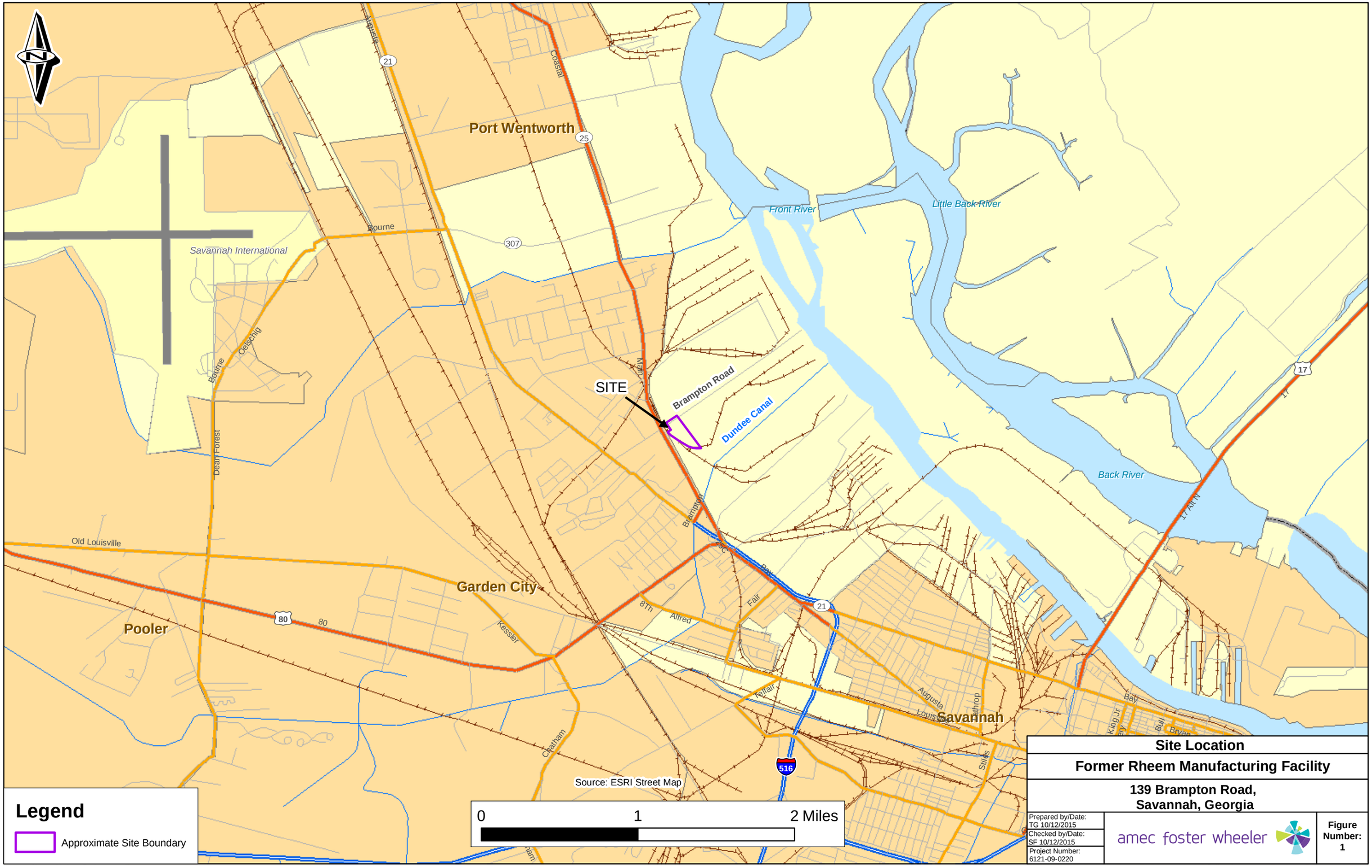
139 BRAMPTON ROAD
SAVANNAH, GA

TABLE 3 - GROUNDWATER ELEVATION MEASUREMENTS

Well ID	Measurement Date	Ground Surface Elev. (ft)	Top of Casing Elev. (ft)	Well Screen Interval (ft)	Depth to Water, FT	Groundwater Elev. (ft)
Monitoring Wells Located On-Site						
W-5	3/27/1997	12.91	13.10	15-20	9.34	3.76
	4/1/1998				7.71	5.39
	10/7/1999				9.03	4.07
	3/29/2000				9.55	3.55
	3/8/2012				9.95	3.15
	3/20/2013				9.64	3.46
	2/13/2014				9.99	3.11
	8/11/2015				10.51	2.59
GW-1	3/27/1999	13.83	16.53	15-20	11.61	4.92
	4/1/1998				10.03	6.50
	10/7/1999				11.04	5.49
	3/29/2000				11.79	4.74
	3/8/2012				12.72	3.81
	3/20/2013				12.41	4.12
	2/13/2014				12.71	3.82
	8/11/2015				12.37	4.16
**GW-7	10/7/1999	15.78	15.78	24-34	10.1	5.68
	3/29/2000				10.88	4.90
	3/8/2012				11.02	4.76
	3/20/2013				10.73	5.05
	2/13/2014				11.03	4.75
	8/11/2015				11.51	4.27
EW-1	3/8/2012	12.95	16.00	5-15	12.2	3.80
	3/20/2013				11.16	4.84
	2/13/2014				11.48	4.52
	8/11/20015				11.51	4.49
EW-2	3/8/2012	12.46	12.46	5-15	8.92	3.54
	3/20/2013				8.65	3.81
	2/13/2014				8.96	3.50
	8/11/2015				8.56	3.90
Monitoring Wells Located Off-Site						
GW-4	4/1/1998	15.91	16.04	8.5-18.5	9.62	6.42
	10/7/1999				9.25	6.79
	3/29/2000				11.45	4.59
	2/13/2014				12.27	3.77
	8/11/2015				12.1	3.94
GW-5	4/1/1998	16.90	16.78	9.2-19.2	10.4	6.38
	10/7/1999				9.82	6.96
	3/29/2000				11.62	5.16
	2/13/2014				13.75	3.03
	8/12/2015				13.88	2.90
**GW-9	10/7/1999	4.29	4.48	24-34	0.94	3.54
	3/29/2000				1.05	3.43
	3/8/2012				1.67	2.81
	3/20/2013				1.54	2.94
	2/13/2014				1.79	2.69
**GW-10	10/7/1999	13.09	13.13	24-34	8.6	4.53
	3/29/2000				9.55	3.58
	2/13/2014				10.04	3.09
	8/11/2015				10.74	2.39
EW-3	3/20/2013	9.27	9.15	3-13	6.99	2.16
	2/13/2014				5.68	3.47
	8/11/2015				6.97	2.18
EW-4	2/13/2014	17.16	17.15	4-14	10.28	6.87
	8/11/2015				8.87	8.28
EW-5	2/13/2014	-0.145	3.18	3-8	3.27	-0.09
	8/11/2015				3.60	-0.42
EW-6	2/13/2014	1.43	4.06	3-8	3.05	1.01
	8/11/2015				3.22	0.84
EW-7	2/13/2014	1.46	4.99	4-9	4.20	0.79
	8/11/2015				5.13	-0.14

** - Deep wells installed approximately 2ft into clay confining layer

FIGURES



Site Location

Former Rheem Manufacturing Facility

139 Brampton Road,
Savannah, Georgia

Prepared by/Date: TG 10/12/2015	amec foster wheeler	Figure Number: 1
Checked by/Date: SF 10/12/2015		
Project Number: 6121-09-0220		

Path: G:\Rheem\mxd\fir1_Site_Loc.mxd
Date Saved: 10/12/2015 8:21:46 AM

C:\Users\alex.flont\appdata\local\temp\AcPublish_2044\Rheem – GW–POT 2015.dwg – OCT 2015 VRP – GW RESULTS 10/19/2015

W–5	DAMES & MOORE	EMC	GOLDER	AMECFW	
	11/6/1987	3/1993	1997	3/8/2012	8/13/15
VOCs					
1,1 DICHLOROETHANE	9.7	127.7	19	28	16.3
1,1 DICHLOROETHENE	44	ND	110	70	48.6
1,2 DICHLOROETHANE	ND	ND	12	<5.0	1.93
cis 1,2 DICHLOROETHENE	ND	ND	<5.0	6.3	4.38
trans 1,2 DICHLOROETHENE	ND	ND	<5.0	<5.0	<1.0
1,1,2 TRICHLOROETHANE	ND	ND	7	<5.0	<1.0
BENZENE	ND	ND	8.4	<5.0	<1.0
TETRACHLOROETHENE	12	26.6	16	120	59.5
TRICHLOROETHENE	ND	ND	<5.0	57	34.0
VINYL CHLORIDE	ND	ND	<10	<2.0	<1.0
METALS					
BARIUM, TOTAL	200	NT	NT	33.3	NT
BARIUM, DISSOLVED	NT	NT	NT	31.8	NT
NICKEL	30	NT	NT	NT	NT

EW–3	AMECFW 3/20/2013	8/11/15
VOCs	BRL	BRL

GW–9	GOLDER 1999	AMECFW 3/20/2013
VOCs		
1,1 DICHLOROETHANE	28	6.14
1,1 DICHLOROETHENE	39	15
1,2 DICHLOROETHENE	9.1	<1.0
BENZENE	8	1.22
TETRACHLOROETHENE	24	5.51
TRICHLOROETHENE	12	1.65
NOT FOUND FOR 2015 SAMPLING EVENT		

EW–5	AMECFW 2/12/2014	8/12/15
VOCs	BR	BRL

EW–6	AMECFW 2/12/2014	8/12/15
VOCs		
1,1 DICHLOROETHANE	2.16	8.29
1,1 DICHLOROETHENE	2.82	13.2

EW–7	AMECFW 2/12/2014	8/12/15
VOCs		
1,1 DICHLOROETHANE	3.72	5.06
1,1 DICHLOROETHENE	10.7	14.4
TRICHLOROETHENE	4.34	7.4
CIS–1,2–DICHLOROETHENE	<1.0	6.19

GW–10	GOLDER 1999	AMECFW 2/13/2013	8/12/15
VOCs			
TETRACHLOROETHENE	<5.0	1.17	4.44
TRICHLOROETHENE	<5.0	2.55	3.0
CIS–1,2–DICHLOROETHENE	<5.0	<5.0	1.23

EW–1	AMECFW 3/8/2012	8/13/15
VOCs	BRL	BRL
METALS		
BARIUM, TOTAL	74	NT
BARIUM, DISSOLVED	68.5	NT

EW–2	AMECFW 3/8/2012	8/13/15
VOCs		
1,1 DICHLOROETHANE	5.7	3.79
1,1 DICHLOROETHENE	7.7	6.34
cis 1,2 DICHLOROETHENE	16	10.5
METHYL TERT–BUTYL ETHER	5.1	<2.0
TETRACHLOROETHENE	76	31.2
TRICHLOROETHENE	51	21.0
METALS		
BARIUM, TOTAL	74.1	NT
BARIUM, DISSOLVED	56.5	NT

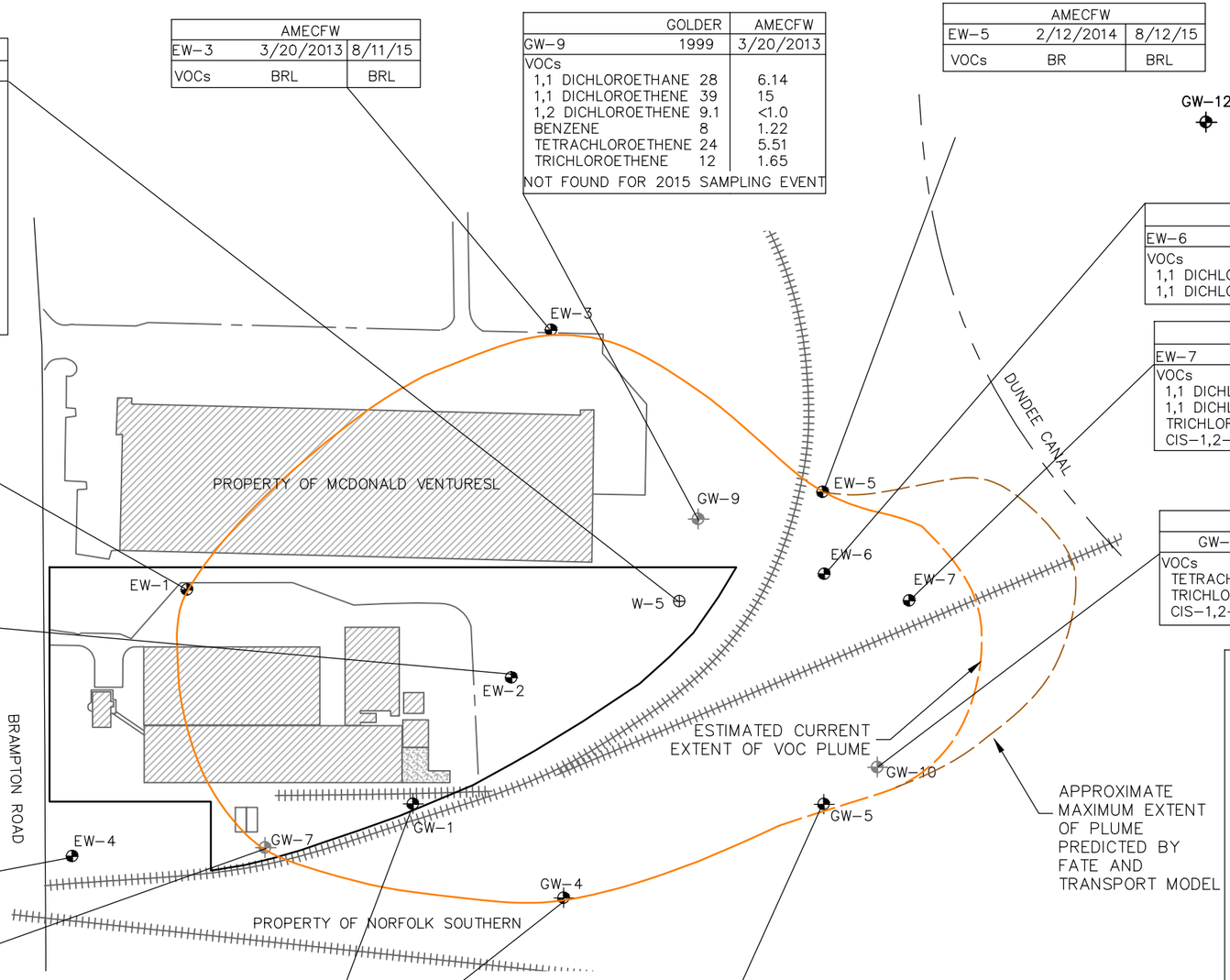
EW–4	AMECFW 2/12/2014	8/11/15
VOCs	BRL	BRL

GW–7	GOLDER 1999	AMECFW 3/8/2012	2/13/2014	8/13/15
VOCs				
XYLENES	68	230	<2.0	<2.0
METALS	NT	BRL	NT	NT

GW–1	GOLDER 1997	AMECFW 3/8/2012	8/13/15
VOCs			
TETRACHLOROETHENE	23	<5.0	<1.0
TRICHLOROETHENE	11	<5.0	<1.0
METALS			
BARIUM, TOTAL	NT	34.1	NT
BARIUM, DISSOLVED	NT	26.2	NT

GW–4	GOLDER 1998	AMECFW 2/13/2014	8/12/15
VOCs	ND	BRL	BRL

GW–5	GOLDER 1998	AMECFW 2/13/2014	8/12/15
VOCs	ND	BRL	BRL



LEGEND:

- ⊕ MONITORING WELL LOCATION (DAMES & MOORE 11/87)
- MONITORING WELL LOCATION (GOLDER 2/97, 10/99)
- MONITORING WELL LOCATION (AMEC 3/12, 3/13, 2/14)
- GW–7, GW–9, GW–10 ARE SCREENED AT THE TOP OF THE UNDERLYING CLAY CONFINING LAYER
- VOCs VOLATILE ORGANIC COMPOUNDS
- ND NOT DETECTED
- NT NOT TESTED
- BRL BELOW LABORATORY REPORTING LIMITS
- DELINEATION OF TOTAL VOCs IN GROUNDWATER

SCALE IN FEET

0 250 500

NOTES:
RESULTS REPORTED IN MICROGRAMS PER LITER

CONSTITUENT	MAXIMUM CONTAMINANT LEVEL/TYPE 1 RRS, MG/L	IN STREAM WATER QUALITY STANDARD, MG/L
TETRACHLOROETHENE	5	3.3
TRICHLOROETHENE	5	30
CIS–1,2–DICHLOROETHENE	70	NOT ESTABLISHED
1,1–DICHLOROETHANE	7,000	NOT ESTABLISHED
1,1–DICHLOROETHENE	7	7,100

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139 BRAMPTON ROAD
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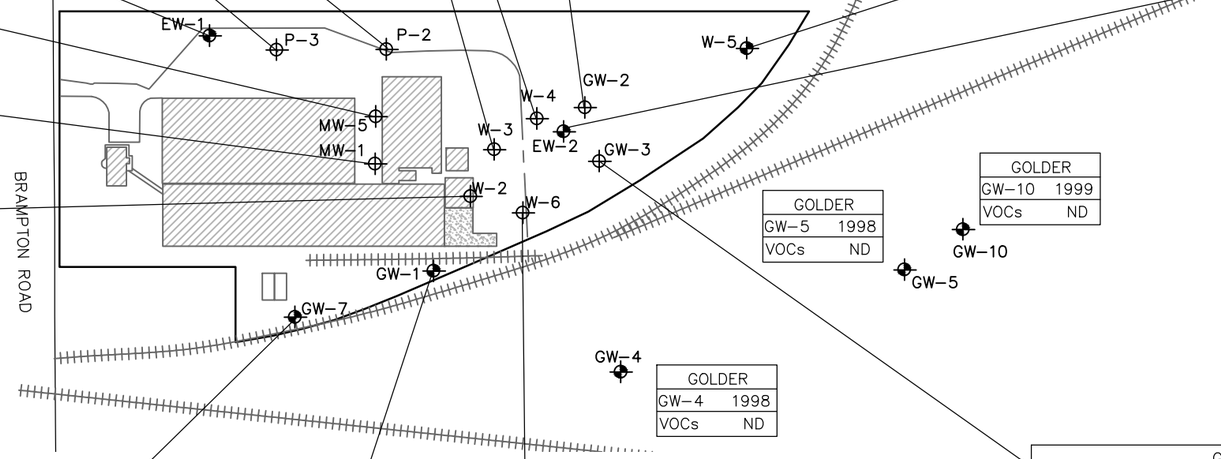
SUMMARY OF GROUNDWATER TEST RESULTS–EXISTING WELLS

Job Number	Task	Date	Scale	Drawn By	Reviewed By	Figure
6121–09–0220	01	OCT 2015	AS SHWON	TG	SF	2



P-2	EMC 3/1993	GOLDER 1999
VOCs		
1,1 DICHLOEOETHANE	65.5	33
1,1 DICHLOROETHENE	90.7	23

P-3	EMC 3/1993
VOCs	ND

EW-1	AMECFW 3/8/2012
VOCs	BRL
METALS	
BARIUM, TOTAL	74
BARIUM, DISSOLVED	68.5

MW-5	EMC 3/1993	GOLDER 1997
VOCs		
1,1 DICHLOEOETHANE	ND	5.4

MW-1	EMC 3/1993
VOCs	ND

W-2	DAMES & MOORE 11/6/1987	EMC 3/1993
VOCs		
1,1 DICHLOROETHANE	24	41
1,1 DICHLOROETHENE	25	485
trans 1,2 DICHLOROETHENE	93	ND
1,1,1 TRICHLOROETHANE	18	40
BENZENE	ND	15
ETHYLBENZENE	12	ND
METHYLENE CHLORIDE	6.7	ND
TETRACHLOROETHENE	5.9	ND
TRICHLOROETHENE	7.7	ND
TOLUENE	19	ND
VINYL CHLORIDE	24	22.8
METALS		
BARIUM	350	NT
BERYLLIUM	NT	3
LEAD	20	NT
MERCURY	ND	7
NICKEL	80	NT

GW-7	GOLDER 1999	AMECFW 3/8/2012
VOCs		
XYLENES	ND	230
METALS	NT	BRL

W-3	DAMES & MOORE 11/6/1987
VOCs	
1,1 DICHLOROETHANE	20
1,1 DICHLOROETHENE	8.8
1,2 DICHLOROETHANE	51
trans 1,2 DICHLOROETHENE	100
1,1,1 TRICHLOROETHANE	9
BENZENE	12
CHLOROBENZENE	11
TRICHLOROETHENE	95
VINYL CHLORIDE	3.6
SVOCs	
1,2 DICHLOROBENZENE	40
METALS	
BARIUM	280
LEAD	40
NICKEL	50

GW-1	GOLDER 1997	AMECFW 3/8/2012
VOCs		
TETRACHLOROETHENE	23	<5.0
TRICHLOROETHENE	11	<5.0
METALS		
BARIUM, TOTAL	NT	34.1
BARIUM, DISSOLVED	NT	26.2

W-4	DAMES & MOORE 11/6/1987	DAMES & MOORE 11/19/1987	GOLDER 1997	GOLDER 1997-DUP
VOCs				
1,1 DICHLOROETHANE	130	88	50	48
1,1 DICHLOROETHENE	36	130	45	43
trans 1,2 DICHLOROETHENE	30	30	11	10
BENZENE	14	15.5	47	47
CARBON TETRACHLORIDE	ND	6.2	ND	ND
TETRACHLOROETHENE	1,800	1,000	150	140
TRICHLOROETHENE	40	39	38	37
VINYL CHLORIDE	ND	ND	ND	ND
SVOCs				
1,2 DICHLOROBENZENE	ND	1.1	NT	NT
METALS				
BARIUM	520	520	NT	NT

GW-8	GOLDER 1999
VOCs	
CHLOROFORM	13

GW-11	GOLDER 1999
VOCs	ND

GW-2	GOLDER 1997
VOCs	ND

W-6	DAMES & MOORE 11/6/1987	EMC 3/1993
VOCs		
1,1 DICHLOROETHANE	3	ND
1,2 TRANS-DICHLOROETHENE	3.9	ND
TRICHLOROETHENE	17	6.6
METALS		
BARIUM	520	NT
LEAD	10	NT

GW-5	GOLDER 1998
VOCs	ND

GW-4	GOLDER 1998
VOCs	ND

GW-9	GOLDER 1999
VOCs	
1,1 DICHLOROETHANE	28
1,1 DICHLOROETHENE	39
1,2 DICHLOROETHENE	9.1
BENZENE	8
TETRACHLOROETHENE	24
TRICHLOROETHENE	12

GW-10	GOLDER 1999
VOCs	ND

GW-3	GOLDER 1997
VOCs	
1,1 DICHLOROETHANE	140
1,1 DICHLOROETHENE	210
1,2 DICHLOROETHANE	7.3
cis/trans 1,2 DICHLOROETHENE	64
1,1,1 TRICHLOROETHANE	7.6
BENZENE	17
CHLOROBENZENE	18
ETHYLBENZENE	21
STYRENE	5.9
TETRACHLOROETHENE	400
TRICHLOROETHENE	49
XYLENES	24

W-5	DAMES & MOORE 11/6/1987	EMC 3/1993	GOLDER 1997	AMECFW 3/8/2012
VOCs				
1,1 DICHLOROETHANE	9.7	127.7	19	28
1,1 DICHLOROETHENE	ND	ND	110	70
1,2 DICHLOROETHANE	ND	ND	12	<5.0
cis 1,2 DICHLOROETHENE	ND	ND	ND	6.3
trans 1,2 DICHLOROETHENE	ND	3.9	ND	<5.0
1,1,2 TRICHLOROETHANE	ND	ND	7	<5.0
BENZENE	ND	ND	8.4	<5.0
TETRACHLOROETHENE	12	26.6	16	120
TRICHLOROETHENE	ND	ND	ND	57
VINYL CHLORIDE	ND	8.5	ND	<2.0
METALS				
BARIUM, TOTAL	200	NT	NT	33.3
BARIUM, DISSOLVED	NT	NT	NT	31.8
NICKEL	30	NT	NT	NT

EW-2	AMECFW 3/8/2012
VOCs	
1,1 DICHLOROETHANE	5.7
1,1 DICHLOROETHENE	7.7
cis 1,2 DICHLOROETHENE	16
METHYL TERT-BUTYL ETHER	5.1
TETRACHLOROETHENE	76
TRICHLOROETHENE	51
METALS	
BARIUM, TOTAL	74.1
BARIUM, DISSOLVED	56.5

LEGEND:

- MONITORING WELL LOCATION
- ABANDONED MONITORING WELL LOCATION
- VOCS — VOLATILE ORGANIC COMPOUNDS
- SVOCS — SEMI-VOLATILE ORGANIC COMPOUNDS
- ND — NOT DETECTED
- NT — NOT TESTED
- BRL — BELOW LABORATORY REPORTING LIMITS

NOTES:
RESULTS REPORTED IN MICROGRAMS PER LITER

SCALE IN FEET

0 250 500

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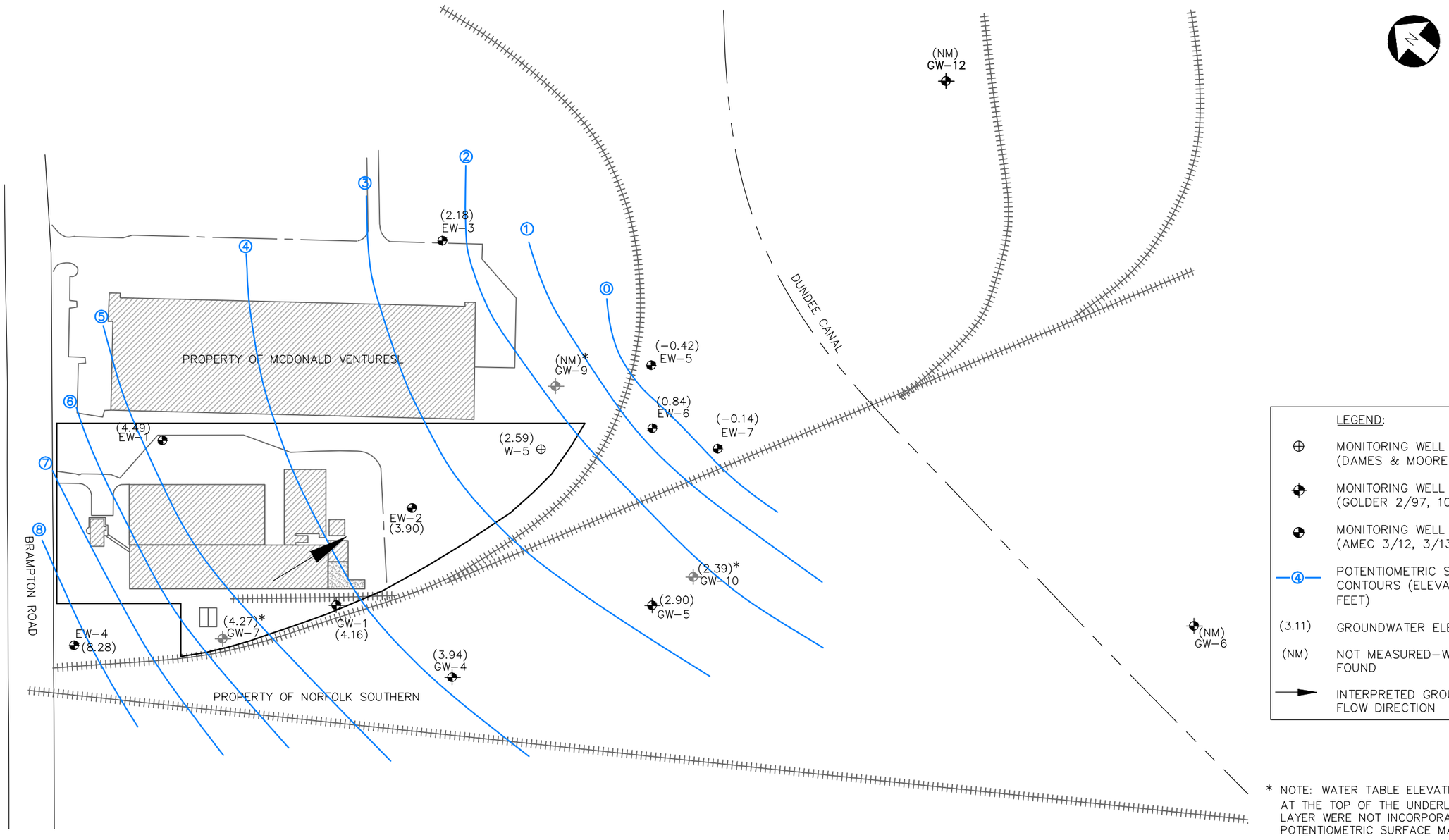
ATLANTA, GEORGIA 30324 (404)873-4761

139 BRAMPTON ROAD
SAVANNAH, GEORGIA

SUMMARY OF HISTORIC ON-SITE GROUNDWATER TEST RESULTS

Job Number	Task	Date	Scale	Drawn By	Reviewed By	Figure
6121-09-0220	01	OCT 2015	AS SHWON	TG	SF	3



LEGEND:

- ⊕ MONITORING WELL LOCATION (DAMES & MOORE 11/87)
- MONITORING WELL LOCATION (GOLDER 2/97, 10/99)
- MONITORING WELL LOCATION (AMEC 3/12, 3/13, 2/14)
- —④— POTENTIOMETRIC SURFACE CONTOURS (ELEVATION IN FEET)
- (3.11) GROUNDWATER ELEVATION
- (NM) NOT MEASURED–WELL NOT FOUND
- → INTERPRETED GROUNDWATER FLOW DIRECTION

* NOTE: WATER TABLE ELEVATIONS SCREENED AT THE TOP OF THE UNDERLYING CLAY LAYER WERE NOT INCORPORATED INTO THE POTENTIOMETRIC SURFACE MAP.

SCALE IN FEET

0 250 500

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ATLANTA, GEORGIA 30324 (404)873-4761

139 BRAMPTON ROAD
SAVANNAH, GEORGIA

POTENTIOMETRIC SURFACE MAP
(AUGUST 11, 2015)

Job Number	Task	Date	Scale	Drawn By	Reviewed By	Figure
6121-09-0220	01	OCT 2015	AS SHWON	TG	SF	4

APPENDIX A
LABORATORY DATA

Analytical Report 513418

for

AMEC Foster Wheeler

Project Manager: Chuck Ferry

139 Brampton Road

6121090220

01-SEP-15

Collected By: Client

6017 Financial Dr., Norcross, GA 30071
Ph:(770) 449-8800 Fax:(770) 449-5477

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-15-19), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

XENCO Laboratories
Florida Testing Services, LLC

01-SEP-15

Project Manager: **Chuck Ferry**
AMEC Foster Wheeler
2677 Buford Hwy NE

Atlanta, GA 30324

Reference: XENCO Report No(s): **513418**
139 Brampton Road
Project Address: Atlanta, GA

Chuck Ferry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 513418. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 513418 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

J. Derek Rounsley
Project Manager

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Sample Cross Reference 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
EW-1	W	08-13-15 15:35		513418-001
EW-2	W	08-11-15 13:40		513418-002
EW-3	W	08-11-15 15:50		513418-003
EW-4	W	08-11-15 14:50		513418-004
EW-5	W	08-12-15 16:00		513418-005
EW-6	W	08-12-15 15:10		513418-006
EW-7	W	08-12-15 14:30		513418-007
W-5	W	08-13-15 14:25		513418-008
GW-1	W	08-13-15 12:00		513418-009
GW-4	W	08-12-15 12:25		513418-010
GW-5	W	08-12-15 11:20		513418-011
GW-7	W	08-13-15 13:35		513418-012
GW-10	W	08-12-15 10:30		513418-013
HA-1	S	08-13-15 15:20	2 ft	513418-014
HA-2	S	08-13-15 14:30	2 ft	513418-015
HA-3	S	08-13-15 12:15	2 ft	513418-016
Trip Blank	W	08-11-15 00:00		513418-017

CASE NARRATIVE

Client Name: AMEC Foster Wheeler
Project Name: 139 Brampton Road

Project ID: *6121090220*
Work Order Number(s): *513418*

Report Date: *01-SEP-15*
Date Received: *08/14/2015*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:
Batch: LBA-974870 VOCs by SW-846 8260B
Lab Sample ID 513418-013 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Acetone, Methyl acetate recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 513418-001, -002, -003, -012, -013, -017.
The Laboratory Control Sample for Acetone, Methyl acetate is within laboratory Control Limits, therefore the data was accepted.

Chloroethane RPD was outside laboratory control limits.
Samples in the analytical batch are: 513418-001, -002, -003, -012, -013, -017

Hits Summary 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id : **EW-1**
Lab Sample Id : 513418-001

Matrix : Ground Water
Date Collected : 08.13.15 15.35
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : Hydrocarbon Gases by Mod. RSK 175
Seq Number 974849

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Methane	74-82-8	0.00323	mg/L	08.19.15 10.07		1

Analytical Method : TOC by SM 5310C
Seq Number 974857

Prep Method: SM5310P
Date Prep: 08.17.15 10.23

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	1.31	mg/L	08.17.15 16.06		1

Sample Id : **EW-2**
Lab Sample Id : 513418-002

Matrix : Ground Water
Date Collected : 08.11.15 13.40
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : VOCs by SW-846 8260B
Seq Number 974870

Prep Method: SW5030B
Date Prep: 08.18.15 10.57

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
1,1-Dichloroethane	75-34-3	3.79	ug/L	08.18.15 17.22		1
1,1-Dichloroethene	75-35-4	6.34	ug/L	08.18.15 17.22		1
cis-1,2-Dichloroethene	156-59-2	10.5	ug/L	08.18.15 17.22		1
Tetrachloroethene	127-18-4	31.2	ug/L	08.18.15 17.22		1
Trichloroethene	79-01-6	21.0	ug/L	08.18.15 17.22		1

Sample Id : **EW-3**
Lab Sample Id : 513418-003

Matrix : Ground Water
Date Collected : 08.11.15 15.50
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : VOCs by SW-846 8260B
Seq Number 974870

Prep Method: SW5030B
Date Prep: 08.18.15 10.57

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	5.04	ug/L	08.18.15 17.46		1

Hits Summary 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id : **EW-4**
Lab Sample Id : 513418-004

Matrix : Ground Water
Date Collected : 08.11.15 14.50
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : VOCs by SW-846 8260B
Seq Number 974691

Prep Method: SW5030B
Date Prep: 08.17.15 08.05

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Dichlorodifluoromethane	75-71-8	3.04	ug/L	08.17.15 14.06		1
Trichlorofluoromethane	75-69-4	3.36	ug/L	08.17.15 14.06		1

Sample Id : **EW-5**
Lab Sample Id : 513418-005

Matrix : Ground Water
Date Collected : 08.12.15 16.00
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : VOCs by SW-846 8260B
Seq Number 974691

Prep Method: SW5030B
Date Prep: 08.17.15 08.05

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Acetone	67-64-1	6.22	ug/L	08.17.15 14.29		1

Sample Id : **EW-6**
Lab Sample Id : 513418-006

Matrix : Ground Water
Date Collected : 08.12.15 15.10
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : VOCs by SW-846 8260B
Seq Number 974691

Prep Method: SW5030B
Date Prep: 08.17.15 08.05

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
1,1-Dichloroethane	75-34-3	8.29	ug/L	08.17.15 14.53		1
1,1-Dichloroethene	75-35-4	13.2	ug/L	08.17.15 14.53		1
cis-1,2-Dichloroethene	156-59-2	1.85	ug/L	08.17.15 14.53		1
Trichloroethene	79-01-6	2.35	ug/L	08.17.15 14.53		1

Hits Summary 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id : **EW-7**
Lab Sample Id : 513418-007

Matrix : Ground Water
Date Collected : 08.12.15 14.30
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : VOCs by SW-846 8260B
Seq Number 974691

Prep Method: SW5030B
Date Prep: 08.17.15 08.05

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
1,1-Dichloroethane	75-34-3	5.06	ug/L	08.17.15 15.17		1
1,1-Dichloroethene	75-35-4	14.4	ug/L	08.17.15 15.17		1
cis-1,2-Dichloroethene	156-59-2	6.19	ug/L	08.17.15 15.17		1
Trichloroethene	79-01-6	7.40	ug/L	08.17.15 15.17		1

Hits Summary 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id : **W-5**
Lab Sample Id : 513418-008

Matrix : Ground Water
Date Collected : 08.13.15 14.25
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : Ferrous Iron by SM3500
Seq Number 974620

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Ferrous Iron	IRON II	0.160	mg/L	08.14.15 11.00		1

Analytical Method : Hydrocarbon Gases by Mod. RSK 175
Seq Number 974849

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Methane	74-82-8	0.0286	mg/L	08.19.15 10.09		1

Analytical Method : TOC by SM 5310C
Seq Number 974857

Prep Method: SM5310P
Date Prep: 08.17.15 10.23

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	5.44	mg/L	08.17.15 16.18		1

Analytical Method : VOCs by SW-846 8260B
Seq Number 974691

Prep Method: SW5030B
Date Prep: 08.17.15 08.05

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
1,1-Dichloroethane	75-34-3	16.3	ug/L	08.17.15 15.40		1
1,1-Dichloroethene	75-35-4	48.6	ug/L	08.17.15 15.40		1
1,2-Dichloroethane	107-06-2	1.93	ug/L	08.17.15 15.40		1
cis-1,2-Dichloroethene	156-59-2	4.38	ug/L	08.17.15 15.40		1
Tetrachloroethene	127-18-4	59.5	ug/L	08.17.15 15.40		1
Trichloroethene	79-01-6	34.0	ug/L	08.17.15 15.40		1

Hits Summary 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id : **GW-1**
Lab Sample Id : 513418-009

Matrix : Ground Water
Date Collected : 08.13.15 12.00
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : Hydrocarbon Gases by Mod. RSK 175
Seq Number 974849

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Methane	74-82-8	0.00277	mg/L	08.19.15 10.12		1

Analytical Method : TOC by SM 5310C
Seq Number 974857

Prep Method: SM5310P
Date Prep: 08.17.15 10.23

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	1.31	mg/L	08.17.15 16.30		1

Sample Id : **GW-10**
Lab Sample Id : 513418-013

Matrix : Ground Water
Date Collected : 08.12.15 10.30
Date Received : 08.14.15 11.15

% Moisture :

Analytical Method : VOCs by SW-846 8260B
Seq Number 974870

Prep Method: SW5030B
Date Prep: 08.18.15 10.57

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
cis-1,2-Dichloroethene	156-59-2	1.23	ug/L	08.18.15 16.11		1
Tetrachloroethene	127-18-4	4.44	ug/L	08.18.15 16.11		1
Trichloroethene	79-01-6	3.00	ug/L	08.18.15 16.11		1

Sample Id : **HA-1**
Lab Sample Id : 513418-014
Sample Depth : 2 ft

Matrix : Soil
Date Collected : 08.13.15 15.20
Date Received : 08.14.15 11.15

% Moisture : 9.35
Basis : Dry Weight

Analytical Method : TOC in Soils by Walkley Black
Seq Number 974946

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	331	mg/kg	08.19.15 15.00		1

Hits Summary 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id : **HA-2**
Lab Sample Id : 513418-015
Sample Depth : 2 ft

Matrix : Soil
Date Collected : 08.13.15 14.30
Date Received : 08.14.15 11.15

% Moisture : 14.15
Basis : Dry Weight

Analytical Method : TOC in Soils by Walkley Black
Seq Number 974946

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	2420	mg/kg	08.19.15 15.00		1

Sample Id : **HA-3**
Lab Sample Id : 513418-016
Sample Depth : 2 ft

Matrix : Soil
Date Collected : 08.13.15 12.15
Date Received : 08.14.15 11.15

% Moisture : 26.85
Basis : Dry Weight

Analytical Method : TOC in Soils by Walkley Black
Seq Number 974946

Parameter	Cas Number	Result	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	19000	mg/kg	08.19.15 15.00		1

Certificate of Analytical Results 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-1** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-001 Date Collected: 08.13.15 15.35

Analytical Method: TOC by SM 5310C Prep Method: SM5310P
Tech: BHRE % Moisture:
Analyst: BHRE Date Prep: 08.17.15 10.23
Seq Number: 974857 SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	**1.31**	1.00	mg/L	08.17.15 16.06		1

Analytical Method: Alkalinity by SM2320B
Tech: DAM % Moisture:
Analyst: NSI
Seq Number: 974750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (CaCO3)		BRL	4.00	mg/L	08.18.15 09.00	U	1

Analytical Method: Ferrous Iron by SM3500
Tech: NSI % Moisture:
Analyst: NSI
Seq Number: 974620

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Ferrous Iron	IRON II	BRL	0.0500	mg/L	08.14.15 11.00	U	1

Analytical Method: Hydrocarbon Gases by Mod. RSK 175
Tech: MWE % Moisture:
Analyst: MWE
Seq Number: 974849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methane	74-82-8	**0.00323**	0.00200	mg/L	08.19.15 10.07		1
Ethane	74-84-0	BRL	0.00200	mg/L	08.19.15 10.07	U	1
Ethene	74-85-1	BRL	0.0020	mg/L	08.19.15 10.07	U	1

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-1** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-001 Date Collected: 08.13.15 15.35

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.18.15 10.57
Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.18.15 16.59	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.18.15 16.59	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.18.15 16.59	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.18.15 16.59	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.18.15 16.59	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.18.15 16.59	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.18.15 16.59	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.18.15 16.59	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.18.15 16.59	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.18.15 16.59	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.18.15 16.59	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.18.15 16.59	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.18.15 16.59	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.18.15 16.59	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.18.15 16.59	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.18.15 16.59	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.00	ug/L	08.18.15 16.59	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.18.15 16.59	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.18.15 16.59	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.18.15 16.59	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.18.15 16.59	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.18.15 16.59	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.18.15 16.59	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.18.15 16.59	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.18.15 16.59	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.18.15 16.59	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-1** Matrix: Ground Water Date Received:08.14.15 11.15

Lab Sample Id: 513418-001 Date Collected: 08.13.15 15.35

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B

Tech: ZHO % Moisture:

Analyst: ZHO Date Prep: 08.18.15 10.57

Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.18.15 16.59	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.18.15 16.59	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.18.15 16.59	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.18.15 16.59	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.18.15 16.59	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.18.15 16.59	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.18.15 16.59	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.18.15 16.59	U	1
Trichloroethene	79-01-6	BRL	1.00	ug/L	08.18.15 16.59	U	1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.18.15 16.59	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.18.15 16.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	133	%	53-159	08.18.15 16.59	
4-Bromofluorobenzene	460-00-4	100	%	30-186	08.18.15 16.59	
Toluene-D8	2037-26-5	108	%	70-130	08.18.15 16.59	

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-2** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-002 Date Collected: 08.11.15 13.40

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.18.15 10.57
Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,1-Dichloroethane	75-34-3	**3.79**	1.00	ug/L	08.18.15 17.22		1
1,1-Dichloroethene	75-35-4	**6.34**	1.00	ug/L	08.18.15 17.22		1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.18.15 17.22	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.18.15 17.22	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.18.15 17.22	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.18.15 17.22	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.18.15 17.22	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.18.15 17.22	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.18.15 17.22	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.18.15 17.22	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.18.15 17.22	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.18.15 17.22	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.18.15 17.22	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.18.15 17.22	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.18.15 17.22	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.18.15 17.22	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.18.15 17.22	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.18.15 17.22	U	1
cis-1,2-Dichloroethene	156-59-2	**10.5**	1.00	ug/L	08.18.15 17.22		1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.18.15 17.22	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.18.15 17.22	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.18.15 17.22	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.18.15 17.22	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.18.15 17.22	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.18.15 17.22	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.18.15 17.22	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.18.15 17.22	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.18.15 17.22	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-2** Matrix: Ground Water Date Received:08.14.15 11.15

Lab Sample Id: 513418-002 Date Collected: 08.11.15 13.40

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B

Tech: ZHO % Moisture:

Analyst: ZHO Date Prep: 08.18.15 10.57

Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.18.15 17.22	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.18.15 17.22	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.18.15 17.22	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.18.15 17.22	U	1
Tetrachloroethene	127-18-4	**31.2**	1.00	ug/L	08.18.15 17.22		1
Toluene	108-88-3	BRL	1.00	ug/L	08.18.15 17.22	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.18.15 17.22	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.18.15 17.22	U	1
Trichloroethene	79-01-6	**21.0**	1.00	ug/L	08.18.15 17.22		1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.18.15 17.22	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.18.15 17.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	130	%	53-159	08.18.15 17.22	
4-Bromofluorobenzene	460-00-4	99	%	30-186	08.18.15 17.22	
Toluene-D8	2037-26-5	108	%	70-130	08.18.15 17.22	

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-3** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-003 Date Collected: 08.11.15 15.50

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.18.15 10.57
Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.18.15 17.46	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.18.15 17.46	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.18.15 17.46	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.18.15 17.46	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.18.15 17.46	U	1
Acetone	67-64-1	**5.04**	2.00	ug/L	08.18.15 17.46		1
Benzene	71-43-2	BRL	1.00	ug/L	08.18.15 17.46	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.18.15 17.46	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.18.15 17.46	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.18.15 17.46	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.18.15 17.46	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.18.15 17.46	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.18.15 17.46	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.18.15 17.46	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.18.15 17.46	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.18.15 17.46	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.00	ug/L	08.18.15 17.46	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.18.15 17.46	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.18.15 17.46	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.18.15 17.46	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.18.15 17.46	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.18.15 17.46	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.18.15 17.46	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.18.15 17.46	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.18.15 17.46	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.18.15 17.46	U	1

Certificate of Analytical Results 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-3** Matrix: Ground Water Date Received:08.14.15 11.15

Lab Sample Id: 513418-003 Date Collected: 08.11.15 15.50

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B

Tech: ZHO % Moisture:

Analyst: ZHO Date Prep: 08.18.15 10.57

Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.18.15 17.46	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.18.15 17.46	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.18.15 17.46	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.18.15 17.46	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.18.15 17.46	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.18.15 17.46	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.18.15 17.46	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.18.15 17.46	U	1
Trichloroethene	79-01-6	BRL	1.00	ug/L	08.18.15 17.46	U	1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.18.15 17.46	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.18.15 17.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	137	%	53-159	08.18.15 17.46	
4-Bromofluorobenzene	460-00-4	99	%	30-186	08.18.15 17.46	
Toluene-D8	2037-26-5	108	%	70-130	08.18.15 17.46	

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-4** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-004 Date Collected: 08.11.15 14.50

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.17.15 08.05
Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.17.15 14.06	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.17.15 14.06	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.17.15 14.06	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.17.15 14.06	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.17.15 14.06	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.17.15 14.06	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.17.15 14.06	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.17.15 14.06	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.17.15 14.06	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.17.15 14.06	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.17.15 14.06	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.17.15 14.06	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.17.15 14.06	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.17.15 14.06	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.17.15 14.06	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.17.15 14.06	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.00	ug/L	08.17.15 14.06	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.17.15 14.06	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.17.15 14.06	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.17.15 14.06	U	1
Dichlorodifluoromethane	75-71-8	**3.04**	1.00	ug/L	08.17.15 14.06		1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.17.15 14.06	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.17.15 14.06	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.17.15 14.06	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.17.15 14.06	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.17.15 14.06	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-4** Matrix: Ground Water Date Received:08.14.15 11.15

Lab Sample Id: 513418-004 Date Collected: 08.11.15 14.50

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B

Tech: ZHO % Moisture:

Analyst: ZHO Date Prep: 08.17.15 08.05

Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.17.15 14.06	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.17.15 14.06	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.17.15 14.06	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.17.15 14.06	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.17.15 14.06	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.17.15 14.06	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.17.15 14.06	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.17.15 14.06	U	1
Trichloroethene	79-01-6	BRL	1.00	ug/L	08.17.15 14.06	U	1
Trichlorofluoromethane	75-69-4	**3.36**	1.00	ug/L	08.17.15 14.06		1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.17.15 14.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	117	%	53-159	08.17.15 14.06	
4-Bromofluorobenzene	460-00-4	98	%	30-186	08.17.15 14.06	
Toluene-D8	2037-26-5	107	%	70-130	08.17.15 14.06	

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-5** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-005 Date Collected: 08.12.15 16.00

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.17.15 08.05
Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.17.15 14.29	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.17.15 14.29	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.17.15 14.29	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.17.15 14.29	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.17.15 14.29	U	1
Acetone	67-64-1	**6.22**	2.00	ug/L	08.17.15 14.29		1
Benzene	71-43-2	BRL	1.00	ug/L	08.17.15 14.29	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.17.15 14.29	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.17.15 14.29	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.17.15 14.29	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.17.15 14.29	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.17.15 14.29	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.17.15 14.29	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.17.15 14.29	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.17.15 14.29	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.17.15 14.29	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.00	ug/L	08.17.15 14.29	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.17.15 14.29	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.17.15 14.29	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.17.15 14.29	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.17.15 14.29	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.17.15 14.29	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.17.15 14.29	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.17.15 14.29	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.17.15 14.29	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.17.15 14.29	U	1

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Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-5**
Lab Sample Id: 513418-005

Matrix: Ground Water
Date Collected: 08.12.15 16.00

Date Received:08.14.15 11.15

Analytical Method: VOCs by SW-846 8260B
Tech: ZHO
Analyst: ZHO
Seq Number: 974691

Date Prep: 08.17.15 08.05

Prep Method: SW5030B
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.17.15 14.29	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.17.15 14.29	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.17.15 14.29	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.17.15 14.29	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.17.15 14.29	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.17.15 14.29	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.17.15 14.29	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.17.15 14.29	U	1
Trichloroethene	79-01-6	BRL	1.00	ug/L	08.17.15 14.29	U	1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.17.15 14.29	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.17.15 14.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	116	%	53-159	08.17.15 14.29	
4-Bromofluorobenzene	460-00-4	100	%	30-186	08.17.15 14.29	
Toluene-D8	2037-26-5	108	%	70-130	08.17.15 14.29	

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XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-6** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-006 Date Collected: 08.12.15 15.10

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.17.15 08.05
Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,1-Dichloroethane	75-34-3	**8.29**	1.00	ug/L	08.17.15 14.53		1
1,1-Dichloroethene	75-35-4	**13.2**	1.00	ug/L	08.17.15 14.53		1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.17.15 14.53	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.17.15 14.53	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.17.15 14.53	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.17.15 14.53	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.17.15 14.53	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.17.15 14.53	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.17.15 14.53	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.17.15 14.53	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.17.15 14.53	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.17.15 14.53	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.17.15 14.53	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.17.15 14.53	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.17.15 14.53	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.17.15 14.53	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.17.15 14.53	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.17.15 14.53	U	1
cis-1,2-Dichloroethene	156-59-2	**1.85**	1.00	ug/L	08.17.15 14.53		1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.17.15 14.53	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.17.15 14.53	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.17.15 14.53	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.17.15 14.53	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.17.15 14.53	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.17.15 14.53	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.17.15 14.53	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.17.15 14.53	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.17.15 14.53	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-6**
Lab Sample Id: 513418-006

Matrix: Ground Water
Date Collected: 08.12.15 15.10

Date Received: 08.14.15 11.15

Analytical Method: VOCs by SW-846 8260B
Tech: ZHO
Analyst: ZHO
Seq Number: 974691

Date Prep: 08.17.15 08.05

Prep Method: SW5030B
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.17.15 14.53	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.17.15 14.53	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.17.15 14.53	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.17.15 14.53	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.17.15 14.53	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.17.15 14.53	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.17.15 14.53	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.17.15 14.53	U	1
Trichloroethene	79-01-6	**2.35**	1.00	ug/L	08.17.15 14.53		1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.17.15 14.53	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.17.15 14.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	116	%	53-159	08.17.15 14.53	
4-Bromofluorobenzene	460-00-4	99	%	30-186	08.17.15 14.53	
Toluene-D8	2037-26-5	108	%	70-130	08.17.15 14.53	

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-7** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-007 Date Collected: 08.12.15 14.30

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.17.15 08.05
Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,1-Dichloroethane	75-34-3	**5.06**	1.00	ug/L	08.17.15 15.17		1
1,1-Dichloroethene	75-35-4	**14.4**	1.00	ug/L	08.17.15 15.17		1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.17.15 15.17	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.17.15 15.17	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.17.15 15.17	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.17.15 15.17	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.17.15 15.17	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.17.15 15.17	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.17.15 15.17	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.17.15 15.17	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.17.15 15.17	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.17.15 15.17	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.17.15 15.17	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.17.15 15.17	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.17.15 15.17	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.17.15 15.17	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.17.15 15.17	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.17.15 15.17	U	1
cis-1,2-Dichloroethene	156-59-2	**6.19**	1.00	ug/L	08.17.15 15.17		1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.17.15 15.17	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.17.15 15.17	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.17.15 15.17	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.17.15 15.17	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.17.15 15.17	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.17.15 15.17	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.17.15 15.17	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.17.15 15.17	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.17.15 15.17	U	1

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Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **EW-7** Matrix: Ground Water Date Received:08.14.15 11.15

Lab Sample Id: 513418-007 Date Collected: 08.12.15 14.30

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B

Tech: ZHO % Moisture:

Analyst: ZHO Date Prep: 08.17.15 08.05

Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.17.15 15.17	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.17.15 15.17	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.17.15 15.17	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.17.15 15.17	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.17.15 15.17	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.17.15 15.17	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.17.15 15.17	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.17.15 15.17	U	1
Trichloroethene	79-01-6	**7.40**	1.00	ug/L	08.17.15 15.17		1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.17.15 15.17	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.17.15 15.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	118	%	53-159	08.17.15 15.17	
4-Bromofluorobenzene	460-00-4	102	%	30-186	08.17.15 15.17	
Toluene-D8	2037-26-5	108	%	70-130	08.17.15 15.17	

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AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **W-5** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-008 Date Collected: 08.13.15 14.25

Analytical Method: TOC by SM 5310C Prep Method: SM5310P
Tech: BHRE % Moisture:
Analyst: BHRE Date Prep: 08.17.15 10.23
Seq Number: 974857 SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	**5.44**	1.00	mg/L	08.17.15 16.18		1

Analytical Method: Alkalinity by SM2320B
Tech: DAM % Moisture:
Analyst: NSI
Seq Number: 974750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (CaCO3)		BRL	4.00	mg/L	08.18.15 09.00	U	1

Analytical Method: Ferrous Iron by SM3500
Tech: NSI % Moisture:
Analyst: NSI
Seq Number: 974620

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Ferrous Iron	IRON II	**0.160**	0.0500	mg/L	08.14.15 11.00		1

Analytical Method: Hydrocarbon Gases by Mod. RSK 175
Tech: MWE % Moisture:
Analyst: MWE
Seq Number: 974849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methane	74-82-8	**0.0286**	0.00200	mg/L	08.19.15 10.09		1
Ethane	74-84-0	BRL	0.00200	mg/L	08.19.15 10.09	U	1
Ethene	74-85-1	BRL	0.0020	mg/L	08.19.15 10.09	U	1

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Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **W-5** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-008 Date Collected: 08.13.15 14.25

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.17.15 08.05
Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,1-Dichloroethane	75-34-3	**16.3**	1.00	ug/L	08.17.15 15.40		1
1,1-Dichloroethene	75-35-4	**48.6**	1.00	ug/L	08.17.15 15.40		1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,2-Dichloroethane	107-06-2	**1.93**	1.00	ug/L	08.17.15 15.40		1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.17.15 15.40	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.17.15 15.40	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.17.15 15.40	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.17.15 15.40	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.17.15 15.40	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.17.15 15.40	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.17.15 15.40	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.17.15 15.40	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.17.15 15.40	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.17.15 15.40	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.17.15 15.40	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.17.15 15.40	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.17.15 15.40	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.17.15 15.40	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.17.15 15.40	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.17.15 15.40	U	1
cis-1,2-Dichloroethene	156-59-2	**4.38**	1.00	ug/L	08.17.15 15.40		1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.17.15 15.40	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.17.15 15.40	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.17.15 15.40	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.17.15 15.40	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.17.15 15.40	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.17.15 15.40	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.17.15 15.40	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.17.15 15.40	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.17.15 15.40	U	1

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Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **W-5**
Lab Sample Id: 513418-008

Matrix: Ground Water
Date Collected: 08.13.15 14.25

Date Received: 08.14.15 11.15

Analytical Method: VOCs by SW-846 8260B
Tech: ZHO
Analyst: ZHO
Seq Number: 974691

Date Prep: 08.17.15 08.05

Prep Method: SW5030B
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.17.15 15.40	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.17.15 15.40	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.17.15 15.40	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.17.15 15.40	U	1
Tetrachloroethene	127-18-4	**59.5**	1.00	ug/L	08.17.15 15.40		1
Toluene	108-88-3	BRL	1.00	ug/L	08.17.15 15.40	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.17.15 15.40	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.17.15 15.40	U	1
Trichloroethene	79-01-6	**34.0**	1.00	ug/L	08.17.15 15.40		1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.17.15 15.40	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.17.15 15.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	117	%	53-159	08.17.15 15.40	
4-Bromofluorobenzene	460-00-4	99	%	30-186	08.17.15 15.40	
Toluene-D8	2037-26-5	109	%	70-130	08.17.15 15.40	

Certificate of Analytical Results 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-1** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-009 Date Collected: 08.13.15 12.00

Analytical Method: TOC by SM 5310C Prep Method: SM5310P
Tech: BHRE % Moisture:
Analyst: BHRE Date Prep: 08.17.15 10.23
Seq Number: 974857 SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	**1.31**	1.00	mg/L	08.17.15 16.30		1

Analytical Method: Alkalinity by SM2320B
Tech: DAM % Moisture:
Analyst: NSI
Seq Number: 974750

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Alkalinity, Total (CaCO3)		BRL	4.00	mg/L	08.18.15 09.00	U	1

Analytical Method: Ferrous Iron by SM3500
Tech: NSI % Moisture:
Analyst: NSI
Seq Number: 974620

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Ferrous Iron	IRON II	BRL	0.0500	mg/L	08.14.15 11.00	U	1

Analytical Method: Hydrocarbon Gases by Mod. RSK 175
Tech: MWE % Moisture:
Analyst: MWE
Seq Number: 974849

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methane	74-82-8	**0.00277**	0.00200	mg/L	08.19.15 10.12		1
Ethane	74-84-0	BRL	0.00200	mg/L	08.19.15 10.12	U	1
Ethene	74-85-1	BRL	0.0020	mg/L	08.19.15 10.12	U	1

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-1** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-009 Date Collected: 08.13.15 12.00

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.17.15 08.05
Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.17.15 16.04	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.17.15 16.04	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.17.15 16.04	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.17.15 16.04	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.17.15 16.04	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.17.15 16.04	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.17.15 16.04	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.17.15 16.04	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.17.15 16.04	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.17.15 16.04	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.17.15 16.04	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.17.15 16.04	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.17.15 16.04	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.17.15 16.04	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.17.15 16.04	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.17.15 16.04	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.00	ug/L	08.17.15 16.04	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.17.15 16.04	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.17.15 16.04	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.17.15 16.04	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.17.15 16.04	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.17.15 16.04	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.17.15 16.04	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.17.15 16.04	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.17.15 16.04	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.17.15 16.04	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-1**
Lab Sample Id: 513418-009

Matrix: Ground Water
Date Collected: 08.13.15 12.00

Date Received: 08.14.15 11.15

Analytical Method: VOCs by SW-846 8260B
Tech: ZHO
Analyst: ZHO
Seq Number: 974691

Date Prep: 08.17.15 08.05

Prep Method: SW5030B
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.17.15 16.04	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.17.15 16.04	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.17.15 16.04	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.17.15 16.04	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.17.15 16.04	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.17.15 16.04	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.17.15 16.04	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.17.15 16.04	U	1
Trichloroethene	79-01-6	BRL	1.00	ug/L	08.17.15 16.04	U	1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.17.15 16.04	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.17.15 16.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	118	%	53-159	08.17.15 16.04	
4-Bromofluorobenzene	460-00-4	101	%	30-186	08.17.15 16.04	
Toluene-D8	2037-26-5	109	%	70-130	08.17.15 16.04	

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-4** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-010 Date Collected: 08.12.15 12.25

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.17.15 08.05
Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.17.15 16.28	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.17.15 16.28	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.17.15 16.28	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.17.15 16.28	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.17.15 16.28	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.17.15 16.28	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.17.15 16.28	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.17.15 16.28	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.17.15 16.28	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.17.15 16.28	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.17.15 16.28	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.17.15 16.28	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.17.15 16.28	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.17.15 16.28	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.17.15 16.28	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.17.15 16.28	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.00	ug/L	08.17.15 16.28	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.17.15 16.28	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.17.15 16.28	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.17.15 16.28	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.17.15 16.28	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.17.15 16.28	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.17.15 16.28	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.17.15 16.28	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.17.15 16.28	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.17.15 16.28	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-4**
Lab Sample Id: 513418-010

Matrix: Ground Water
Date Collected: 08.12.15 12.25

Date Received: 08.14.15 11.15

Analytical Method: VOCs by SW-846 8260B
Tech: ZHO
Analyst: ZHO
Seq Number: 974691

Date Prep: 08.17.15 08.05

Prep Method: SW5030B
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.17.15 16.28	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.17.15 16.28	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.17.15 16.28	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.17.15 16.28	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.17.15 16.28	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.17.15 16.28	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.17.15 16.28	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.17.15 16.28	U	1
Trichloroethene	79-01-6	BRL	1.00	ug/L	08.17.15 16.28	U	1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.17.15 16.28	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.17.15 16.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	120	%	53-159	08.17.15 16.28	
4-Bromofluorobenzene	460-00-4	100	%	30-186	08.17.15 16.28	
Toluene-D8	2037-26-5	108	%	70-130	08.17.15 16.28	

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-5** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-011 Date Collected: 08.12.15 11.20

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.17.15 08.05
Seq Number: 974691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.17.15 18.50	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.17.15 18.50	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.17.15 18.50	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.17.15 18.50	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.17.15 18.50	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.17.15 18.50	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.17.15 18.50	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.17.15 18.50	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.17.15 18.50	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.17.15 18.50	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.17.15 18.50	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.17.15 18.50	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.17.15 18.50	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.17.15 18.50	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.17.15 18.50	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.17.15 18.50	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.00	ug/L	08.17.15 18.50	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.17.15 18.50	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.17.15 18.50	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.17.15 18.50	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.17.15 18.50	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.17.15 18.50	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.17.15 18.50	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.17.15 18.50	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.17.15 18.50	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.17.15 18.50	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-5**
Lab Sample Id: 513418-011

Matrix: Ground Water
Date Collected: 08.12.15 11.20

Date Received:08.14.15 11.15

Analytical Method: VOCs by SW-846 8260B
Tech: ZHO
Analyst: ZHO
Seq Number: 974691

Date Prep: 08.17.15 08.05

Prep Method: SW5030B
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.17.15 18.50	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.17.15 18.50	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.17.15 18.50	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.17.15 18.50	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.17.15 18.50	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.17.15 18.50	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.17.15 18.50	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.17.15 18.50	U	1
Trichloroethene	79-01-6	BRL	1.00	ug/L	08.17.15 18.50	U	1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.17.15 18.50	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.17.15 18.50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	117	%	53-159	08.17.15 18.50	
4-Bromofluorobenzene	460-00-4	99	%	30-186	08.17.15 18.50	
Toluene-D8	2037-26-5	109	%	70-130	08.17.15 18.50	

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-7** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-012 Date Collected: 08.13.15 13.35

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.18.15 10.57
Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.18.15 15.48	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.18.15 15.48	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.18.15 15.48	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.18.15 15.48	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.18.15 15.48	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.18.15 15.48	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.18.15 15.48	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.18.15 15.48	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.18.15 15.48	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.18.15 15.48	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.18.15 15.48	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.18.15 15.48	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.18.15 15.48	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.18.15 15.48	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.18.15 15.48	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.18.15 15.48	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.00	ug/L	08.18.15 15.48	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.18.15 15.48	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.18.15 15.48	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.18.15 15.48	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.18.15 15.48	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.18.15 15.48	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.18.15 15.48	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.18.15 15.48	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.18.15 15.48	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.18.15 15.48	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-7**
Lab Sample Id: 513418-012

Matrix: Ground Water
Date Collected: 08.13.15 13.35

Date Received:08.14.15 11.15

Analytical Method: VOCs by SW-846 8260B
Tech: ZHO
Analyst: ZHO
Seq Number: 974870

Date Prep: 08.18.15 10.57

Prep Method: SW5030B
% Moisture:

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.18.15 15.48	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.18.15 15.48	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.18.15 15.48	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.18.15 15.48	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.18.15 15.48	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.18.15 15.48	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.18.15 15.48	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.18.15 15.48	U	1
Trichloroethene	79-01-6	BRL	1.00	ug/L	08.18.15 15.48	U	1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.18.15 15.48	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.18.15 15.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	132	%	53-159	08.18.15 15.48	
4-Bromofluorobenzene	460-00-4	100	%	30-186	08.18.15 15.48	
Toluene-D8	2037-26-5	108	%	70-130	08.18.15 15.48	

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-10** Matrix: Ground Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-013 Date Collected: 08.12.15 10.30

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.18.15 10.57
Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.18.15 16.11	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.18.15 16.11	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.18.15 16.11	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.18.15 16.11	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.18.15 16.11	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.18.15 16.11	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.18.15 16.11	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.18.15 16.11	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.18.15 16.11	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.18.15 16.11	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.18.15 16.11	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.18.15 16.11	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.18.15 16.11	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.18.15 16.11	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.18.15 16.11	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.18.15 16.11	U	1
cis-1,2-Dichloroethene	156-59-2	**1.23**	1.00	ug/L	08.18.15 16.11		1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.18.15 16.11	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.18.15 16.11	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.18.15 16.11	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.18.15 16.11	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.18.15 16.11	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.18.15 16.11	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.18.15 16.11	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.18.15 16.11	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.18.15 16.11	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **GW-10** Matrix: Ground Water Date Received:08.14.15 11.15

Lab Sample Id: 513418-013 Date Collected: 08.12.15 10.30

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B

Tech: ZHO % Moisture:

Analyst: ZHO Date Prep: 08.18.15 10.57

Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.18.15 16.11	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.18.15 16.11	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.18.15 16.11	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.18.15 16.11	U	1
Tetrachloroethene	127-18-4	**4.44**	1.00	ug/L	08.18.15 16.11		1
Toluene	108-88-3	BRL	1.00	ug/L	08.18.15 16.11	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.18.15 16.11	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.18.15 16.11	U	1
Trichloroethene	79-01-6	**3.00**	1.00	ug/L	08.18.15 16.11		1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.18.15 16.11	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.18.15 16.11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	132	%	53-159	08.18.15 16.11	
4-Bromofluorobenzene	460-00-4	99	%	30-186	08.18.15 16.11	
Toluene-D8	2037-26-5	107	%	70-130	08.18.15 16.11	

Certificate of Analytical Results 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **HA-1** Matrix: Soil Date Received:08.14.15 11.15

Lab Sample Id: 513418-014 Date Collected: 08.13.15 15.20 Sample Depth: 2 ft

Analytical Method: TOC in Soils by Walkley Black

Tech: DHE % Moisture: 9.35

Analyst: DHE Basis: Dry Weight

Seq Number: 974946 SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	**331**	0.552	mg/kg	08.19.15 15.00		1

Certificate of Analytical Results 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **HA-2** Matrix: Soil Date Received: 08.14.15 11.15

Lab Sample Id: 513418-015 Date Collected: 08.13.15 14.30 Sample Depth: 2 ft

Analytical Method: TOC in Soils by Walkley Black

Tech: DHE % Moisture: 14.15

Analyst: DHE Basis: Dry Weight

Seq Number: 974946 SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	**2420**	0.582	mg/kg	08.19.15 15.00		1

Certificate of Analytical Results 513418

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **HA-3**
Lab Sample Id: 513418-016

Matrix: Soil
Date Collected: 08.13.15 12.15

Date Received: 08.14.15 11.15
Sample Depth: 2 ft

Analytical Method: TOC in Soils by Walkley Black
Tech: DHE
Analyst: DHE
Seq Number: 974946

% Moisture: 26.85
Basis: Dry Weight
SUB: E871002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Total Organic Carbon	7440-44-0	**19000**	0.684	mg/kg	08.19.15 15.00		1

Certificate of Analytical Results 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **Trip Blank** Matrix: Water Date Received:08.14.15 11.15
Lab Sample Id: 513418-017 Date Collected: 08.11.15 00.00

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B
Tech: ZHO % Moisture:
Analyst: ZHO Date Prep: 08.18.15 10.57
Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
1,1,1-Trichloroethane	71-55-6	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,1-Dichloroethane	75-34-3	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,1-Dichloroethene	75-35-4	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,2-Dichloroethane	107-06-2	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,2-Dichloropropane	78-87-5	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.00	ug/L	08.18.15 16.35	U	1
1,4-Dioxane	123-91-1	BRL	20.0	ug/L	08.18.15 16.35	U	1
2-Butanone (MEK)	78-93-3	BRL	2.00	ug/L	08.18.15 16.35	U	1
2-Hexanone	591-78-6	BRL	2.00	ug/L	08.18.15 16.35	U	1
4-Methyl-2-pentanone (MIBK)	108-10-1	BRL	2.00	ug/L	08.18.15 16.35	U	1
Acetone	67-64-1	BRL	2.00	ug/L	08.18.15 16.35	U	1
Benzene	71-43-2	BRL	1.00	ug/L	08.18.15 16.35	U	1
Bromodichloromethane	75-27-4	BRL	1.00	ug/L	08.18.15 16.35	U	1
Bromoform	75-25-2	BRL	1.00	ug/L	08.18.15 16.35	U	1
Bromomethane	74-83-9	BRL	1.00	ug/L	08.18.15 16.35	U	1
Carbon disulfide	75-15-0	BRL	1.00	ug/L	08.18.15 16.35	U	1
Carbon tetrachloride	56-23-5	BRL	1.00	ug/L	08.18.15 16.35	U	1
Chlorobenzene	108-90-7	BRL	1.00	ug/L	08.18.15 16.35	U	1
Chloroethane	75-00-3	BRL	1.00	ug/L	08.18.15 16.35	U	1
Chloroform	67-66-3	BRL	1.00	ug/L	08.18.15 16.35	U	1
Chloromethane	74-87-3	BRL	1.00	ug/L	08.18.15 16.35	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.00	ug/L	08.18.15 16.35	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.00	ug/L	08.18.15 16.35	U	1
Cyclohexane	110-82-7	BRL	1.00	ug/L	08.18.15 16.35	U	1
Dibromochloromethane	124-48-1	BRL	1.00	ug/L	08.18.15 16.35	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.00	ug/L	08.18.15 16.35	U	1
Ethylbenzene	100-41-4	BRL	1.00	ug/L	08.18.15 16.35	U	1
Isopropylbenzene	98-82-8	BRL	1.00	ug/L	08.18.15 16.35	U	1
m,p-Xylenes	179601-23-1	BRL	2.00	ug/L	08.18.15 16.35	U	1
Methyl acetate	79-20-9	BRL	2.00	ug/L	08.18.15 16.35	U	1
Methyl tert-butyl ether	1634-04-4	BRL	2.00	ug/L	08.18.15 16.35	U	1

Certificate of Analytical Results 513418

Florida Testing Services, LLC

AMEC Foster Wheeler, Atlanta, GA

139 Brampton Road

Sample Id: **Trip Blank** Matrix: Water Date Received:08.14.15 11.15

Lab Sample Id: 513418-017 Date Collected: 08.11.15 00.00

Analytical Method: VOCs by SW-846 8260B Prep Method: SW5030B

Tech: ZHO % Moisture:

Analyst: ZHO Date Prep: 08.18.15 10.57

Seq Number: 974870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Methylcyclohexane	108-87-2	BRL	1.00	ug/L	08.18.15 16.35	U	1
Methylene chloride	75-09-2	BRL	1.00	ug/L	08.18.15 16.35	U	1
o-Xylene	95-47-6	BRL	1.00	ug/L	08.18.15 16.35	U	1
Styrene	100-42-5	BRL	1.00	ug/L	08.18.15 16.35	U	1
Tetrachloroethene	127-18-4	BRL	1.00	ug/L	08.18.15 16.35	U	1
Toluene	108-88-3	BRL	1.00	ug/L	08.18.15 16.35	U	1
trans-1,2-Dichloroethene	156-60-5	BRL	1.00	ug/L	08.18.15 16.35	U	1
trans-1,3-Dichloropropene	10061-02-6	BRL	1.00	ug/L	08.18.15 16.35	U	1
Trichloroethene	79-01-6	BRL	1.00	ug/L	08.18.15 16.35	U	1
Trichlorofluoromethane	75-69-4	BRL	1.00	ug/L	08.18.15 16.35	U	1
Vinyl chloride	75-01-4	BRL	1.00	ug/L	08.18.15 16.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,2-Dichloroethane-D4	17060-07-0	132	%	53-159	08.18.15 16.35	
4-Bromofluorobenzene	460-00-4	100	%	30-186	08.18.15 16.35	
Toluene-D8	2037-26-5	110	%	70-130	08.18.15 16.35	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 513418

AMEC Foster Wheeler
139 Brampton Road

Analytical Method: **TOC by SM 5310C** Prep Method: SM5310P
Seq Number: 974857 Matrix: Water Date Prep: 08.17.15
MB Sample Id: 696834-1-BLK LCS Sample Id: 696834-1-BKS LCSD Sample Id: 696834-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Organic Carbon	0.188	5.00	5.26	105	5.28	106	90-110	0	20	mg/L	08.17.15 15:43	

Analytical Method: **TOC by SM 5310C** Prep Method: SM5310P
Seq Number: 974857 Matrix: Ground Water Date Prep: 08.17.15
Parent Sample Id: 513272-007 MS Sample Id: 513272-007 S MSD Sample Id: 513272-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Organic Carbon	3.14	5.00	8.09	99	8.27	103	90-110	2	20	mg/L	08.18.15 15:39	

Analytical Method: **TOC by SM 5310C** Prep Method: SM5310P
Seq Number: 974857 Matrix: Ground Water Date Prep: 08.17.15
Parent Sample Id: 513347-004 MS Sample Id: 513347-004 S MSD Sample Id: 513347-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Organic Carbon	1.76	5.00	9.03	145	9.15	148	90-110	1	20	mg/L	08.18.15 17:38	X

Analytical Method: **Alkalinity by SM2320B**
Seq Number: 974750 Matrix: Water
MB Sample Id: 974750-1-BLK LCS Sample Id: 974750-1-BKS LCSD Sample Id: 974750-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (CaCO3)	<0.954	69.0	68.0	99	69.0	100	80-120	1	20	mg/L	08.18.15 09:00	

Analytical Method: **Alkalinity by SM2320B**
Seq Number: 974750 Matrix: Ground Water
Parent Sample Id: 513475-001 MD Sample Id: 513475-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Alkalinity, Total (CaCO3)	110	110	0	20	mg/L	08.18.15 09:00	

Analytical Method: **Ferrous Iron by SM3500**
Seq Number: 974620 Matrix: Water
MB Sample Id: 974620-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Iron	BRL	mg/L	08.14.15 11:00	

QC Summary 513418

AMEC Foster Wheeler
139 Brampton Road

Analytical Method: **Ferrous Iron by SM3500**
Seq Number: 974620 Matrix: Ground Water
Parent Sample Id: 513418-001 MD Sample Id: 513418-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Ferrous Iron	<0.0500	<0.0500	0	25	mg/L	08.14.15 11:00	U

Analytical Method: **Hydrocarbon Gases by Mod. RSK 175**
Seq Number: 974849 Matrix: Water
MB Sample Id: 974849-1-BLK LCS Sample Id: 974849-1-BKS LCSD Sample Id: 974849-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Methane	<0.00187	0.0886	0.0759	86	0.0767	87	41-112	1	20	mg/L	08.19.15 09:58	
Ethane	<0.00203	0.181	0.144	80	0.154	85	42-107	7	20	mg/L	08.19.15 09:58	
Ethene	<0.0020	0.13	0.11	85	0.11	85	31-107	0	20	mg/L	08.19.15 09:58	

Analytical Method: **Hydrocarbon Gases by Mod. RSK 175**
Seq Number: 974849 Matrix: Ground Water
Parent Sample Id: 513418-001 MS Sample Id: 513418-001 S MSD Sample Id: 513418-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Methane	0.00323	0.0886	0.0783	85	0.0763	82	41-112	3	20	mg/L	08.19.15 10:14	
Ethane	<0.00203	0.181	0.168	93	0.163	90	42-107	3	20	mg/L	08.19.15 10:14	
Ethene	<0.0020	0.13	0.12	92	0.11	85	31-107	9	20	mg/L	08.19.15 10:14	

Analytical Method: **Percent Moisture**
Seq Number: 974641 Matrix: Solid
MB Sample Id: 974641-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Percent Moisture	BRL	%	08.17.15 10:42	

Analytical Method: **Percent Moisture**
Seq Number: 974641 Matrix: Soil
Parent Sample Id: 513418-014 MD Sample Id: 513418-014 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	9.35	9.42	1	20	%	08.17.15 10:42	

QC Summary 513418

Florida Testing Services, LLC

AMEC Foster Wheeler

139 Brampton Road

Analytical Method: **TOC in Soils by Walkley Black**

Seq Number: 974946 Matrix: Solid

MB Sample Id: 974946-1-BLK LCS Sample Id: 974946-1-BKS LCSD Sample Id: 974946-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Organic Carbon	<0.250	1000	889	89	889	89	70-130	0	30	mg/kg	08.19.15 15:00	

Analytical Method: **TOC in Soils by Walkley Black**

Seq Number: 974946 Matrix: Soil

Parent Sample Id: 513418-014 MD Sample Id: 513418-014 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Organic Carbon	331	349	5	30	mg/kg	08.19.15 15:00	

QC Summary 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler
139 Brampton Road

Analytical Method: **VOCs by SW-846 8260B** Prep Method: SW5030B
Seq Number: 974691 Matrix: Water Date Prep: 08.17.15
MB Sample Id: 696725-1-BLK LCS Sample Id: 696725-1-BKS LCSD Sample Id: 696725-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.160	50.0	52.5	105	50.6	101	65-130	4	20	ug/L	08.17.15 09:26	
1,1,2,2-Tetrachloroethane	<0.180	50.0	48.3	97	46.5	93	65-130	4	20	ug/L	08.17.15 09:26	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.110	50.0	57.2	114	52.3	105	65-130	9	20	ug/L	08.17.15 09:26	
1,1,2-Trichloroethane	<0.250	50.0	50.1	100	48.9	98	75-125	2	20	ug/L	08.17.15 09:26	
1,1-Dichloroethane	<0.110	50.0	56.3	113	53.9	108	70-135	4	20	ug/L	08.17.15 09:26	
1,1-Dichloroethene	<0.200	50.0	53.6	107	51.4	103	70-130	4	20	ug/L	08.17.15 09:26	
1,2,4-Trichlorobenzene	<0.170	50.0	53.5	107	52.1	104	65-135	3	20	ug/L	08.17.15 09:26	
1,2-Dibromo-3-chloropropane (DBCP)	<0.190	50.0	39.6	79	40.6	81	50-130	2	20	ug/L	08.17.15 09:26	
1,2-Dibromoethane (EDB)	<0.180	50.0	51.0	102	50.5	101	80-120	1	20	ug/L	08.17.15 09:26	
1,2-Dichlorobenzene	<0.140	50.0	49.5	99	47.4	95	70-120	4	20	ug/L	08.17.15 09:26	
1,2-Dichloroethane	<0.180	50.0	52.3	105	50.7	101	70-130	3	20	ug/L	08.17.15 09:26	
1,2-Dichloropropane	<0.150	50.0	49.9	100	48.5	97	75-125	3	20	ug/L	08.17.15 09:26	
1,3-Dichlorobenzene	<0.170	50.0	50.1	100	47.2	94	75-125	6	20	ug/L	08.17.15 09:26	
1,4-Dichlorobenzene	<0.170	50.0	48.8	98	45.9	92	75-125	6	20	ug/L	08.17.15 09:26	
1,4-Dioxane	<8.84	1000	931	93	903	90	30-145	3	20	ug/L	08.17.15 09:26	
2-Butanone (MEK)	<0.280	100	99.4	99	93.6	94	30-150	6	20	ug/L	08.17.15 09:26	
2-Hexanone	<0.320	100	105	105	103	103	55-130	2	20	ug/L	08.17.15 09:26	
4-Methyl-2-pentanone (MIBK)	<0.260	100	100	100	98.2	98	60-135	2	20	ug/L	08.17.15 09:26	
Acetone	<0.350	100	114	114	105	105	40-140	8	20	ug/L	08.17.15 09:26	
Benzene	<0.160	50.0	48.2	96	46.3	93	80-120	4	20	ug/L	08.17.15 09:26	
Bromodichloromethane	<0.250	50.0	48.1	96	46.0	92	75-120	4	20	ug/L	08.17.15 09:26	
Bromoform	<0.170	50.0	43.9	88	42.2	84	70-130	4	20	ug/L	08.17.15 09:26	
Bromomethane	<0.250	50.0	50.8	102	47.4	95	30-145	7	20	ug/L	08.17.15 09:26	
Carbon disulfide	<0.260	50.0	53.9	108	50.7	101	35-160	6	20	ug/L	08.17.15 09:26	
Carbon tetrachloride	<0.330	50.0	49.9	100	48.0	96	65-140	4	20	ug/L	08.17.15 09:26	
Chlorobenzene	<0.150	50.0	49.5	99	46.9	94	80-120	5	20	ug/L	08.17.15 09:26	
Chloroethane	<0.260	50.0	48.1	96	46.9	94	60-135	3	20	ug/L	08.17.15 09:26	
Chloroform	<0.160	50.0	53.1	106	50.3	101	65-135	5	20	ug/L	08.17.15 09:26	
Chloromethane	<0.250	50.0	42.9	86	40.6	81	40-125	6	20	ug/L	08.17.15 09:26	
cis-1,2-Dichloroethene	<0.210	50.0	48.7	97	45.6	91	70-125	7	20	ug/L	08.17.15 09:26	
cis-1,3-Dichloropropene	<0.100	50.0	50.1	100	47.6	95	70-130	5	20	ug/L	08.17.15 09:26	
Cyclohexane	<0.150	50.0	50.9	102	48.5	97	65-135	5	20	ug/L	08.17.15 09:26	
Dibromochloromethane	<0.150	50.0	48.8	98	47.5	95	60-135	3	20	ug/L	08.17.15 09:26	
Dichlorodifluoromethane	<0.220	50.0	36.8	74	32.9	66	30-155	11	20	ug/L	08.17.15 09:26	
Ethylbenzene	<0.190	50.0	49.7	99	47.5	95	75-125	5	20	ug/L	08.17.15 09:26	
Isopropylbenzene	<0.150	50.0	46.2	92	44.5	89	75-125	4	20	ug/L	08.17.15 09:26	
m,p-Xylenes	<0.510	100	101	101	96.5	97	75-130	5	20	ug/L	08.17.15 09:26	
Methyl acetate	<0.260	50.0	54.4	109	54.2	108	65-135	0	20	ug/L	08.17.15 09:26	
Methyl tert-butyl ether	<0.180	100	106	106	102	102	65-125	4	20	ug/L	08.17.15 09:26	
Methylcyclohexane	<0.110	50.0	51.9	104	48.6	97	65-135	7	20	ug/L	08.17.15 09:26	
Methylene chloride	<0.420	50.0	57.1	114	55.0	110	55-140	4	20	ug/L	08.17.15 09:26	
o-Xylene	<0.200	50.0	50.0	100	47.8	96	80-120	4	20	ug/L	08.17.15 09:26	
Styrene	<0.180	50.0	51.5	103	48.5	97	65-135	6	20	ug/L	08.17.15 09:26	
Tetrachloroethene	<0.160	50.0	46.4	93	43.2	86	45-150	7	20	ug/L	08.17.15 09:26	
Toluene	<0.140	50.0	48.9	98	47.2	94	75-120	4	20	ug/L	08.17.15 09:26	
trans-1,2-Dichloroethene	<0.210	50.0	61.1	122	57.0	114	60-140	7	20	ug/L	08.17.15 09:26	
trans-1,3-Dichloropropene	<0.110	50.0	43.4	87	42.3	85	55-140	3	20	ug/L	08.17.15 09:26	
Trichloroethene	<0.190	50.0	48.3	97	46.4	93	70-125	4	20	ug/L	08.17.15 09:26	
Trichlorofluoromethane	<0.530	50.0	56.1	112	53.8	108	60-145	4	20	ug/L	08.17.15 09:26	
Vinyl chloride	<0.190	50.0	48.4	97	45.7	91	50-145	6	20	ug/L	08.17.15 09:26	

QC Summary 513418

Florida Testing Services, LLC

AMEC Foster Wheeler

139 Brampton Road

Analytical Method:	**VOCs by SW-846 8260B**			Prep Method:	SW5030B
Seq Number:	974691	Matrix:	Water	Date Prep:	08.17.15
MB Sample Id:	696725-1-BLK	LCS Sample Id:	696725-1-BKS	LCSD Sample Id:	696725-1-BSD

Surrogate	**MB %Rec**	**MB Flag**	**LCS %Rec**	**LCS Flag**	**LCSD %Rec**	**LCSD Flag**	**Limits**	**Units**	**Analysis Date**
1,2-Dichloroethane-D4	114		109		105		53-159	%	08.17.15 09:26
4-Bromofluorobenzene	101		97		99		30-186	%	08.17.15 09:26
Toluene-D8	107		105		105		70-130	%	08.17.15 09:26

QC Summary 513418

AMEC Foster Wheeler

139 Brampton Road

Analytical Method: **VOCs by SW-846 8260B** Prep Method: SW5030B

Seq Number: 974870 Matrix: Water Date Prep: 08.18.15

MB Sample Id: 696844-1-BLK LCS Sample Id: 696844-1-BKS LCSD Sample Id: 696844-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.160	50.0	51.6	103	51.4	103	65-130	0	20	ug/L	08.18.15 11:47	
1,1,2,2-Tetrachloroethane	<0.180	50.0	47.3	95	47.1	94	65-130	0	20	ug/L	08.18.15 11:47	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.110	50.0	57.0	114	57.1	114	65-130	0	20	ug/L	08.18.15 11:47	
1,1,2-Trichloroethane	<0.250	50.0	48.3	97	50.3	101	75-125	4	20	ug/L	08.18.15 11:47	
1,1-Dichloroethane	<0.110	50.0	56.3	113	55.9	112	70-135	1	20	ug/L	08.18.15 11:47	
1,1-Dichloroethene	<0.200	50.0	54.8	110	54.3	109	70-130	1	20	ug/L	08.18.15 11:47	
1,2,4-Trichlorobenzene	<0.170	50.0	49.8	100	49.9	100	65-135	0	20	ug/L	08.18.15 11:47	
1,2-Dibromo-3-chloropropane (DBCP)	<0.190	50.0	39.4	79	40.0	80	50-130	2	20	ug/L	08.18.15 11:47	
1,2-Dibromoethane (EDB)	<0.180	50.0	50.6	101	49.9	100	80-120	1	20	ug/L	08.18.15 11:47	
1,2-Dichlorobenzene	<0.140	50.0	47.7	95	46.7	93	70-120	2	20	ug/L	08.18.15 11:47	
1,2-Dichloroethane	<0.180	50.0	54.7	109	54.6	109	70-130	0	20	ug/L	08.18.15 11:47	
1,2-Dichloropropane	<0.150	50.0	47.9	96	48.2	96	75-125	1	20	ug/L	08.18.15 11:47	
1,3-Dichlorobenzene	<0.170	50.0	47.4	95	46.3	93	75-125	2	20	ug/L	08.18.15 11:47	
1,4-Dichlorobenzene	<0.170	50.0	45.9	92	44.8	90	75-125	2	20	ug/L	08.18.15 11:47	
1,4-Dioxane	<8.84	1000	891	89	900	90	30-145	1	20	ug/L	08.18.15 11:47	
2-Butanone (MEK)	<0.280	100	105	105	107	107	30-150	2	20	ug/L	08.18.15 11:47	
2-Hexanone	<0.320	100	110	110	114	114	55-130	4	20	ug/L	08.18.15 11:47	
4-Methyl-2-pentanone (MIBK)	<0.260	100	106	106	110	110	60-135	4	20	ug/L	08.18.15 11:47	
Acetone	<0.350	100	118	118	122	122	40-140	3	20	ug/L	08.18.15 11:47	
Benzene	<0.160	50.0	46.3	93	47.1	94	80-120	2	20	ug/L	08.18.15 11:47	
Bromodichloromethane	<0.250	50.0	44.4	89	46.0	92	75-120	4	20	ug/L	08.18.15 11:47	
Bromoform	<0.170	50.0	39.4	79	40.6	81	70-130	3	20	ug/L	08.18.15 11:47	
Bromomethane	<0.250	50.0	54.6	109	55.8	112	30-145	2	20	ug/L	08.18.15 11:47	
Carbon disulfide	<0.260	50.0	51.2	102	52.3	105	35-160	2	20	ug/L	08.18.15 11:47	
Carbon tetrachloride	<0.330	50.0	47.2	94	48.6	97	65-140	3	20	ug/L	08.18.15 11:47	
Chlorobenzene	<0.150	50.0	46.9	94	47.5	95	80-120	1	20	ug/L	08.18.15 11:47	
Chloroethane	<0.260	50.0	56.5	113	44.4	89	60-135	24	20	ug/L	08.18.15 11:47	F
Chloroform	<0.160	50.0	50.5	101	51.3	103	65-135	2	20	ug/L	08.18.15 11:47	
Chloromethane	<0.250	50.0	55.1	110	55.3	111	40-125	0	20	ug/L	08.18.15 11:47	
cis-1,2-Dichloroethene	<0.210	50.0	46.6	93	46.4	93	70-125	0	20	ug/L	08.18.15 11:47	
cis-1,3-Dichloropropene	<0.100	50.0	45.1	90	45.6	91	70-130	1	20	ug/L	08.18.15 11:47	
Cyclohexane	<0.150	50.0	51.0	102	51.2	102	65-135	0	20	ug/L	08.18.15 11:47	
Dibromochloromethane	<0.150	50.0	45.6	91	45.9	92	60-135	1	20	ug/L	08.18.15 11:47	
Dichlorodifluoromethane	<0.220	50.0	59.2	118	59.5	119	30-155	1	20	ug/L	08.18.15 11:47	
Ethylbenzene	<0.190	50.0	47.5	95	47.7	95	75-125	0	20	ug/L	08.18.15 11:47	
Isopropylbenzene	<0.150	50.0	44.2	88	44.1	88	75-125	0	20	ug/L	08.18.15 11:47	
m,p-Xylenes	<0.510	100	96.3	96	96.3	96	75-130	0	20	ug/L	08.18.15 11:47	
Methyl acetate	<0.260	50.0	60.6	121	61.7	123	65-135	2	20	ug/L	08.18.15 11:47	
Methyl tert-butyl ether	<0.180	100	106	106	107	107	65-125	1	20	ug/L	08.18.15 11:47	
Methylcyclohexane	<0.110	50.0	48.1	96	48.5	97	65-135	1	20	ug/L	08.18.15 11:47	
Methylene chloride	<0.420	50.0	58.1	116	54.4	109	55-140	7	20	ug/L	08.18.15 11:47	
o-Xylene	<0.200	50.0	46.9	94	46.4	93	80-120	1	20	ug/L	08.18.15 11:47	
Styrene	<0.180	50.0	48.7	97	48.9	98	65-135	0	20	ug/L	08.18.15 11:47	
Tetrachloroethene	<0.160	50.0	43.0	86	44.1	88	45-150	3	20	ug/L	08.18.15 11:47	
Toluene	<0.140	50.0	46.0	92	46.4	93	75-120	1	20	ug/L	08.18.15 11:47	
trans-1,2-Dichloroethene	<0.210	50.0	58.6	117	58.0	116	60-140	1	20	ug/L	08.18.15 11:47	
trans-1,3-Dichloropropene	<0.110	50.0	40.3	81	40.4	81	55-140	0	20	ug/L	08.18.15 11:47	
Trichloroethene	<0.190	50.0	46.1	92	46.1	92	70-125	0	20	ug/L	08.18.15 11:47	
Trichlorofluoromethane	<0.530	50.0	63.1	126	64.3	129	60-145	2	20	ug/L	08.18.15 11:47	
Vinyl chloride	<0.190	50.0	57.1	114	56.9	114	50-145	0	20	ug/L	08.18.15 11:47	

QC Summary 513418

Florida Testing Services, LLC

AMEC Foster Wheeler

139 Brampton Road

Analytical Method:	**VOCs by SW-846 8260B**			Prep Method:	SW5030B
Seq Number:	974870	Matrix:	Water	Date Prep:	08.18.15
MB Sample Id:	696844-1-BLK	LCS Sample Id:	696844-1-BKS	LCSD Sample Id:	696844-1-BSD

Surrogate	**MB %Rec**	**MB Flag**	**LCS %Rec**	**LCS Flag**	**LCSD %Rec**	**LCSD Flag**	**Limits**	**Units**	**Analysis Date**
1,2-Dichloroethane-D4	126		118		115		53-159	%	08.18.15 11:47
4-Bromofluorobenzene	100		97		99		30-186	%	08.18.15 11:47
Toluene-D8	109		105		106		70-130	%	08.18.15 11:47

QC Summary 513418

XENCO Laboratories
Florida Testing Services, LLC

AMEC Foster Wheeler
139 Brampton Road

Analytical Method: **VOCs by SW-846 8260B** Prep Method: SW5030B
Seq Number: 974691 Matrix: Ground Water Date Prep: 08.17.15
Parent Sample Id: 513418-010 MS Sample Id: 513418-010 S MSD Sample Id: 513418-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.160	50.0	49.2	98	49.0	98	59-138	0	20	ug/L	08.17.15 19:13	
1,1,2,2-Tetrachloroethane	<0.180	50.0	49.2	98	48.3	97	63-126	2	20	ug/L	08.17.15 19:13	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.110	50.0	53.4	107	52.2	104	53-138	2	20	ug/L	08.17.15 19:13	
1,1,2-Trichloroethane	<0.250	50.0	50.0	100	49.8	100	72-115	0	20	ug/L	08.17.15 19:13	
1,1-Dichloroethane	<0.110	50.0	55.0	110	53.6	107	69-132	3	20	ug/L	08.17.15 19:13	
1,1-Dichloroethene	<0.200	50.0	52.8	106	52.1	104	62-131	1	20	ug/L	08.17.15 19:13	
1,2,4-Trichlorobenzene	<0.170	50.0	49.0	98	47.9	96	34-131	2	20	ug/L	08.17.15 19:13	
1,2-Dibromo-3-chloropropane (DBCP)	<0.190	50.0	41.9	84	41.4	83	53-121	1	20	ug/L	08.17.15 19:13	
1,2-Dibromoethane (EDB)	<0.180	50.0	50.0	100	50.2	100	66-125	0	20	ug/L	08.17.15 19:13	
1,2-Dichlorobenzene	<0.140	50.0	46.5	93	46.1	92	58-124	1	20	ug/L	08.17.15 19:13	
1,2-Dichloroethane	<0.180	50.0	52.0	104	52.4	105	55-141	1	20	ug/L	08.17.15 19:13	
1,2-Dichloropropane	<0.150	50.0	47.2	94	47.6	95	78-121	1	20	ug/L	08.17.15 19:13	
1,3-Dichlorobenzene	<0.170	50.0	46.6	93	45.4	91	62-120	3	20	ug/L	08.17.15 19:13	
1,4-Dichlorobenzene	<0.170	50.0	44.9	90	44.3	89	64-114	1	20	ug/L	08.17.15 19:13	
1,4-Dioxane	<8.84	1000	980	98	974	97	11-185	1	20	ug/L	08.17.15 19:13	
2-Butanone (MEK)	<0.280	100	113	113	111	111	50-152	2	20	ug/L	08.17.15 19:13	
2-Hexanone	<0.320	100	118	118	118	118	55-136	0	20	ug/L	08.17.15 19:13	
4-Methyl-2-pentanone (MIBK)	<0.260	100	111	111	109	109	65-132	2	20	ug/L	08.17.15 19:13	
Acetone	<0.350	100	123	123	120	120	40-140	2	20	ug/L	08.17.15 19:13	
Benzene	<0.160	50.0	46.1	92	44.7	89	77-118	3	20	ug/L	08.17.15 19:13	
Bromodichloromethane	<0.250	50.0	44.8	90	44.5	89	68-125	1	20	ug/L	08.17.15 19:13	
Bromoform	<0.170	50.0	40.3	81	40.9	82	53-112	1	20	ug/L	08.17.15 19:13	
Bromomethane	<0.250	50.0	42.5	85	42.7	85	63-137	0	20	ug/L	08.17.15 19:13	
Carbon disulfide	<0.260	50.0	44.7	89	45.8	92	26-147	2	20	ug/L	08.17.15 19:13	
Carbon tetrachloride	<0.330	50.0	45.1	90	45.9	92	56-138	2	20	ug/L	08.17.15 19:13	
Chlorobenzene	<0.150	50.0	47.3	95	46.5	93	71-114	2	20	ug/L	08.17.15 19:13	
Chloroethane	<0.260	50.0	42.5	85	41.0	82	60-137	4	20	ug/L	08.17.15 19:13	
Chloroform	<0.160	50.0	50.2	100	49.9	100	65-131	1	20	ug/L	08.17.15 19:13	
Chloromethane	<0.250	50.0	37.8	76	35.8	72	48-151	5	20	ug/L	08.17.15 19:13	
cis-1,2-Dichloroethene	<0.210	50.0	47.1	94	46.6	93	22-185	1	20	ug/L	08.17.15 19:13	
cis-1,3-Dichloropropene	<0.100	50.0	43.5	87	44.5	89	67-113	2	20	ug/L	08.17.15 19:13	
Cyclohexane	<0.150	50.0	48.4	97	47.3	95	61-141	2	20	ug/L	08.17.15 19:13	
Dibromochloromethane	<0.150	50.0	45.0	90	46.1	92	53-125	2	20	ug/L	08.17.15 19:13	
Dichlorodifluoromethane	<0.220	50.0	26.6	53	25.2	50	38-145	5	20	ug/L	08.17.15 19:13	
Ethylbenzene	<0.190	50.0	47.0	94	46.7	93	66-127	1	20	ug/L	08.17.15 19:13	
Isopropylbenzene	<0.150	50.0	42.9	86	42.6	85	58-127	1	20	ug/L	08.17.15 19:13	
m,p-Xylenes	<0.510	100	94.5	95	94.0	94	65-126	1	20	ug/L	08.17.15 19:13	
Methyl acetate	<0.260	50.0	58.2	116	59.0	118	65-135	1	20	ug/L	08.17.15 19:13	
Methyl tert-butyl ether	<0.180	100	105	105	103	103	58-141	2	20	ug/L	08.17.15 19:13	
Methylcyclohexane	<0.110	50.0	46.6	93	45.7	91	64-128	2	20	ug/L	08.17.15 19:13	
Methylene chloride	<0.420	50.0	56.1	112	54.5	109	63-150	3	20	ug/L	08.17.15 19:13	
o-Xylene	<0.200	50.0	46.7	93	46.0	92	64-123	2	20	ug/L	08.17.15 19:13	
Styrene	<0.180	50.0	48.4	97	47.5	95	50-133	2	20	ug/L	08.17.15 19:13	
Tetrachloroethene	<0.160	50.0	41.3	83	41.5	83	52-125	0	20	ug/L	08.17.15 19:13	
Toluene	<0.140	50.0	45.9	92	45.3	91	65-123	1	20	ug/L	08.17.15 19:13	
trans-1,2-Dichloroethene	<0.210	50.0	56.8	114	56.4	113	65-135	1	20	ug/L	08.17.15 19:13	
trans-1,3-Dichloropropene	<0.110	50.0	39.5	79	40.0	80	50-125	1	20	ug/L	08.17.15 19:13	
Trichloroethene	<0.190	50.0	45.4	91	45.1	90	65-125	1	20	ug/L	08.17.15 19:13	
Trichlorofluoromethane	<0.530	50.0	49.7	99	48.9	98	51-145	2	20	ug/L	08.17.15 19:13	
Vinyl chloride	<0.190	50.0	41.6	83	41.1	82	52-140	1	20	ug/L	08.17.15 19:13	

QC Summary 513418

Florida Testing Services, LLC

AMEC Foster Wheeler

139 Brampton Road

Analytical Method:	**VOCs by SW-846 8260B**			Prep Method:	SW5030B
Seq Number:	974691	Matrix:	Ground Water	Date Prep:	08.17.15
Parent Sample Id:	513418-010	MS Sample Id:	513418-010 S	MSD Sample Id:	513418-010 SD

Surrogate	**MS %Rec**	**MS Flag**	**MSD %Rec**	**MSD Flag**	**Limits**	**Units**	**Analysis Date**
1,2-Dichloroethane-D4	115		113		53-159	%	08.17.15 19:13
4-Bromofluorobenzene	97		97		30-186	%	08.17.15 19:13
Toluene-D8	102		104		70-130	%	08.17.15 19:13

QC Summary 513418

Florida Testing Services, LLC

AMEC Foster Wheeler

139 Brampton Road

Analytical Method: **VOCs by SW-846 8260B** Prep Method: SW5030B

Seq Number: 974870 Matrix: Ground Water Date Prep: 08.18.15

Parent Sample Id: 513418-013 MS Sample Id: 513418-013 S MSD Sample Id: 513418-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
1,1,1-Trichloroethane	<0.160	50.0	56.9	114	52.5	105	59-138	8	20	ug/L	08.18.15 21:48	
1,1,2,2-Tetrachloroethane	<0.180	50.0	48.3	97	49.3	99	63-126	2	20	ug/L	08.18.15 21:48	
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.110	50.0	61.0	122	58.4	117	53-138	4	20	ug/L	08.18.15 21:48	
1,1,2-Trichloroethane	<0.250	50.0	49.7	99	49.4	99	72-115	1	20	ug/L	08.18.15 21:48	
1,1-Dichloroethane	<0.110	50.0	63.7	127	60.4	121	69-132	5	20	ug/L	08.18.15 21:48	
1,1-Dichloroethene	<0.200	50.0	58.2	116	57.3	115	62-131	2	20	ug/L	08.18.15 21:48	
1,2,4-Trichlorobenzene	<0.170	50.0	48.7	97	48.0	96	34-131	1	20	ug/L	08.18.15 21:48	
1,2-Dibromo-3-chloropropane (DBCP)	<0.190	50.0	43.9	88	43.8	88	53-121	0	20	ug/L	08.18.15 21:48	
1,2-Dibromoethane (EDB)	<0.180	50.0	51.4	103	50.2	100	66-125	2	20	ug/L	08.18.15 21:48	
1,2-Dichlorobenzene	<0.140	50.0	48.0	96	46.9	94	58-124	2	20	ug/L	08.18.15 21:48	
1,2-Dichloroethane	<0.180	50.0	62.3	125	58.7	117	55-141	6	20	ug/L	08.18.15 21:48	
1,2-Dichloropropane	<0.150	50.0	49.8	100	48.5	97	78-121	3	20	ug/L	08.18.15 21:48	
1,3-Dichlorobenzene	<0.170	50.0	47.5	95	46.4	93	62-120	2	20	ug/L	08.18.15 21:48	
1,4-Dichlorobenzene	<0.170	50.0	46.3	93	45.0	90	64-114	3	20	ug/L	08.18.15 21:48	
1,4-Dioxane	<8.84	1000	996	100	978	98	11-185	2	20	ug/L	08.18.15 21:48	
2-Butanone (MEK)	<0.280	100	122	122	123	123	50-152	1	20	ug/L	08.18.15 21:48	
2-Hexanone	<0.320	100	127	127	124	124	55-136	2	20	ug/L	08.18.15 21:48	
4-Methyl-2-pentanone (MIBK)	<0.260	100	122	122	120	120	65-132	2	20	ug/L	08.18.15 21:48	
Acetone	<0.350	100	143	143	136	136	40-140	5	20	ug/L	08.18.15 21:48	X
Benzene	<0.160	50.0	47.0	94	44.1	88	77-118	6	20	ug/L	08.18.15 21:48	
Bromodichloromethane	<0.250	50.0	50.7	101	47.4	95	68-125	7	20	ug/L	08.18.15 21:48	
Bromoform	<0.170	50.0	43.4	87	42.4	85	53-112	2	20	ug/L	08.18.15 21:48	
Bromomethane	<0.250	50.0	35.8	72	41.1	82	63-137	14	20	ug/L	08.18.15 21:48	
Carbon disulfide	<0.260	50.0	57.9	116	55.6	111	26-147	4	20	ug/L	08.18.15 21:48	
Carbon tetrachloride	<0.330	50.0	54.8	110	49.6	99	56-138	10	20	ug/L	08.18.15 21:48	
Chlorobenzene	<0.150	50.0	48.3	97	46.3	93	71-114	4	20	ug/L	08.18.15 21:48	
Chloroethane	<0.260	50.0	49.3	99	54.4	109	60-137	10	20	ug/L	08.18.15 21:48	
Chloroform	<0.160	50.0	56.0	112	51.8	104	65-131	8	20	ug/L	08.18.15 21:48	
Chloromethane	<0.250	50.0	50.4	101	52.1	104	48-151	3	20	ug/L	08.18.15 21:48	
cis-1,2-Dichloroethene	1.23	50.0	48.2	94	47.0	92	22-185	3	20	ug/L	08.18.15 21:48	
cis-1,3-Dichloropropene	<0.100	50.0	44.8	90	43.7	87	67-113	2	20	ug/L	08.18.15 21:48	
Cyclohexane	<0.150	50.0	52.2	104	50.3	101	61-141	4	20	ug/L	08.18.15 21:48	
Dibromochloromethane	<0.150	50.0	49.3	99	47.4	95	53-125	4	20	ug/L	08.18.15 21:48	
Dichlorodifluoromethane	<0.220	50.0	56.6	113	54.7	109	38-145	3	20	ug/L	08.18.15 21:48	
Ethylbenzene	<0.190	50.0	49.6	99	46.7	93	66-127	6	20	ug/L	08.18.15 21:48	
Isopropylbenzene	<0.150	50.0	44.3	89	43.3	87	58-127	2	20	ug/L	08.18.15 21:48	
m,p-Xylenes	<0.510	100	98.3	98	93.3	93	65-126	5	20	ug/L	08.18.15 21:48	
Methyl acetate	<0.260	50.0	68.2	136	67.2	134	65-135	1	20	ug/L	08.18.15 21:48	X
Methyl tert-butyl ether	<0.180	100	113	113	112	112	58-141	1	20	ug/L	08.18.15 21:48	
Methylcyclohexane	<0.110	50.0	46.7	93	44.7	89	64-128	4	20	ug/L	08.18.15 21:48	
Methylene chloride	<0.420	50.0	61.4	123	59.0	118	63-150	4	20	ug/L	08.18.15 21:48	
o-Xylene	<0.200	50.0	47.6	95	46.3	93	64-123	3	20	ug/L	08.18.15 21:48	
Styrene	<0.180	50.0	48.9	98	47.2	94	50-133	4	20	ug/L	08.18.15 21:48	
Tetrachloroethene	4.44	50.0	47.4	86	44.1	79	52-125	7	20	ug/L	08.18.15 21:48	
Toluene	<0.140	50.0	46.5	93	45.0	90	65-123	3	20	ug/L	08.18.15 21:48	
trans-1,2-Dichloroethene	<0.210	50.0	63.5	127	60.2	120	65-135	5	20	ug/L	08.18.15 21:48	
trans-1,3-Dichloropropene	<0.110	50.0	42.5	85	40.9	82	50-125	4	20	ug/L	08.18.15 21:48	
Trichloroethene	3.00	50.0	51.1	96	48.6	91	65-125	5	20	ug/L	08.18.15 21:48	
Trichlorofluoromethane	<0.530	50.0	68.2	136	64.4	129	51-145	6	20	ug/L	08.18.15 21:48	
Vinyl chloride	<0.190	50.0	54.7	109	52.7	105	52-140	4	20	ug/L	08.18.15 21:48	

QC Summary 513418

Florida Testing Services, LLC

AMEC Foster Wheeler

139 Brampton Road

Analytical Method:	**VOCs by SW-846 8260B**			Prep Method:	SW5030B
Seq Number:	974870	Matrix:	Ground Water	Date Prep:	08.18.15
Parent Sample Id:	513418-013	MS Sample Id:	513418-013 S	MSD Sample Id:	513418-013 SD

Surrogate	**MS %Rec**	**MS Flag**	**MSD %Rec**	**MSD Flag**	**Limits**	**Units**	**Analysis Date**
1,2-Dichloroethane-D4	129		126		53-159	%	08.18.15 21:48
4-Bromofluorobenzene	99		100		30-186	%	08.18.15 21:48
Toluene-D8	102		101		70-130	%	08.18.15 21:48

XENCO LABORATORIES

XENCO LABORATORIES
CHAIN OF CUSTODY

COC# ATL301313
Page _____ of _____

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: AMEC Foster Wheeler
Address: 2677 Buford Hwy NE. Atlanta, GA 30324
Results Sent to: Chuck Ferry Steve Foley Dustin H
Email address:
Contact Phone #: 404 8170154 Cell#:
Project Name (Site): RHcom
Project Number (ID): 6121090220
Regulatory Program:

Receiver's Initials/Temp: _____ / 1.3° C
Custody Seal(s):___ Y N Lab Work Order # S13418
P.O.# (if required):
Field Comments / Lab Precautions:

Container Type:
Chemical Preservation Code:

Sampler(s): (signature)
Sampler(s): (printed) Paul Gaino

Analysis Requested

Line No.	Sample ID #	Sample Depth (Ft)	Collection Date / Time	Matrix (See below)	Composite	Grab	No. of Containers	VOCs	NA
1	EW-1		1535 / 8/13/15	GW		✓	9	✓	✓
2	EW-2		1340 8/11/15	GW		✓	2	✓	
3	EW-3		1550 8/11/15	GW		✓	2	✓	
4	EW-4		1450 8/11/15	GW		✓	2	✓	
5	EW-5		1600 8/12/15	GW		✓	2	✓	
6	EW6		1510 8/12/15	GW		✓	2	✓	
7	EW7		1430 8/12/15	GW		✓	2	✓	
8	W-5		1425 8/13/15	GW		✓	9	✓	✓
9	GW1		1200 8/13/15	GW		✓	9	✓	✓
10	GW4		1225 8/12/15	GW		✓	2	✓	

1) Relinquished By: 8/14/15	Date / Time 1115	2) Received By: 8/14/15	Date / Time 11:15
3) Relinquished By:	Date / Time	4) Received By:	Date / Time
5) Relinquished By:	Date / Time	6) Received By:	Date / Time

Delivered by: (Circle One)
Fed Ex / UPS / Courier / Lab Pickup / Hand / Other

Turnaround Time (business days)
TAT Starts when samples are rec'd by 2PM
___10 Days ; ___5-7 Days; ___3 Days
___2 Days ; ___1 Day; ___Same Day

Matrix Guide: (W=Water) (DW = Drinking Water) (GW = Groundwater) (SW = Surface Water) (L = Liquid) (O = Oil) (S = Soil) (SD = Solid) (SL = Sludge) (A = Air) (C = Air Cartridge)
Chemical Preservation Codes: 1 = HCL / 2 = HNO_3 / 3 = H_2SO_4 / 4 = NaOH + $NaAsO_2$ / 5 = NaOH + ZnAc / 6 = $Na_2S_2O_3$ / 7 = $NaHSO_4$ & MeOH / 8 = DI Water & MeOH
Container Type: VC=Vial (Clear); VA =Vial (Amber); GC=Glass (Clear); GA=Glass (Amber); P=Plastic (HDPE); TB=Tedlar Bag; ES=EnCore Sampler; ZB=Ziploc Bag; O=Other

XENCO LABORATORIES
CHAIN OF CUSTODY

COC# ATL30I314
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6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: AMEC Foster Wheeler
Address: 2677 Buford Hwy NE. Atlanta, GA 30324
Results Sent to: Chuck Ferry Steve Foley Dustin H.
Email address:
Contact Phone #: 404 817 0154 Cell#:
Project Name (Site): RHcm
Project Number (ID): 612109 0220
Regulatory Program:

Receiver's Initials/Temp: PL / 1.3°C
Custody Seal(s): ___ Y N Lab Work Order # 513418
P.O.# (if required):
Field Comments / Lab Precautions:

Sampler(s): (signature) [signature]
Sampler(s): (printed) PAUL GAZZO

Analysis Requested

Line No.	Sample ID #	Sample Depth (Ft)	Collection Date / Time	Matrix (See below)	Composite	Grab	No. of Containers	VOCs	TOC
1	GW5		1120 8/12/15	GW		X	2	✓	
2	GW7		1335 8/13/15	GW		X	2	✓	
3	GW10		1030 8/12/15	GW		X	2	✓	
4	HA1	2'	1520 8/13/15	S		X	1		✓
5	HA2	2'	1430 8/13/15	S		X	1		✓
6	HA3	2'	1215 8/13/15	S		X	1		✓
7									
8									
9									
10									

1) Relinquished By: [signature] 8/14/15	Date / Time 1115	2) Received By: [signature] 8/14/15	Date / Time 1115
3) Relinquished By:	Date / Time	4) Received By:	Date / Time
5) Relinquished By:	Date / Time	6) Received By:	Date / Time

Delivered by: (Circle One)
Fed Ex / UPS / Courier / Lab Pickup / Hand / Other

Turnaround Time (business days)
TAT Starts when samples are rec'd by 2PM
___10 Days ; ___5-7 Days; ___3 Days
___2 Days ; ___1 Day; ___Same Day

Matrix Guide: (W=Water) (DW = Drinking Water) (GW = Groundwater) (SW = Surface Water) (L = Liquid) (O = Oil) (S = Soil) (SD = Solid) (SL = Sludge) (A = Air) (C = Air Cartridge)
Chemical Preservation Codes: 1 = HCL / 2 = HNO_3 / 3 = H_2SO_4 / 4 = NaOH + $NaAsO_2$ / 5 = NaOH + ZnAc / 6 = $Na_2S_2O_3$ / 7 = $NaHSO_4$ & MeOH / 8 = DI Water & MeOH
Container Type: VC=Vial (Clear); VA =Vial (Amber); GC=Glass (Clear); GA=Glass (Amber); P=Plastic (HDPE); TB=Tedlar Bag; ES=EnCore Sampler; ZB=Ziploc Bag; O=Other

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Florida Testing Services, LLC

Client: AMEC Foster Wheeler

Date/ Time Received: 08/14/2015 11:15:00 AM

Work Order #: 513418

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : #61

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6 *Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Sample instructions complete on Chain of Custody?	**Yes**	
#9 Any missing/extra samples?	**No**	
#10 Chain of Custody signed when relinquished/ received?	**Yes**	
#11 Chain of Custody agrees with sample label(s)?	**Yes**	
#12 Container label(s) legible and intact?	**Yes**	
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**	
#14 Samples in proper container/ bottle?	**Yes**	
#15 Samples properly preserved?	**Yes**	
#16 Sample container(s) intact?	**Yes**	
#17 Sufficient sample amount for indicated test(s)?	**Yes**	
#18 All samples received within hold time?	**Yes**	
#19 Subcontract of sample(s)?	**No**	
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**	
#21 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	**Yes**	
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**	DL

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#: I016662-9

Checklist completed by: Dario Lagunas Date: 08/14/2015

Checklist reviewed by: Jeff Wilmoth Date: 08/14/2015

AES

August 21, 2015

Eben Buchanan
Xenco Laboratories
6017 Financial Dr.
Norcross GA 30071

TEL: (770) 449-8800
FAX: (770) 449-5477

RE: Xenco

Dear Eben Buchanan: Order No: 1508C55

Analytical Environmental Services, Inc. received 3 samples on 8/14/2015 4:15:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Dorothy J deBruyn

Dorothy deBruyn
Project Manager

1D8C55

Inter-Office Shipment #: 1029758

Date Printed: Fri Aug-14-15 02:18 pm Page 1 of 1

Date/Time: 08/14/15 13:37
Lab# From: Atlanta
Lab# To: Houston

Created by: Dario Lagunas
Delivery Priority:
Air Bill No.:

Please send report to: Jeff Wilmoth
Address: 6017 Financial Dr., Norcross, GA 30071
Phone: Ph:(770) 449-8800 Fax:(770) 449-5477
E-Mail: Jeff.Wilmoth@xenco.cc

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
513418-001	W	EW-1	08/13/15 15:35	E300	Inorganic Anions by EPA 300	08/19/15	09/10/15	JWI	00620 CL NO3 SO4 ,NO2	
513418-008	W	W-5	08/13/15 14:25	E300	Inorganic Anions by EPA 300	08/19/15	09/10/15	JWI	00620 CL NO3 SO4 ,NO2	
513418-009	W	GW-1	08/13/15 12:00	E300	Inorganic Anions by EPA 300	08/19/15	09/10/15	JWI	00620 CL NO3 SO4 ,NO2	

Inter Office Shipment or Sample Comments: NO2, NO3, Cl, SO4.

Relinquished By: Dario Lagunas

Date Relinquished: 08/14/2015

Received By:

Date Received: 8/14/15 4:15

Cooler Temperature:

Analytical Environmental Services, Inc

Date: 21-Aug-15

Client:	Xenco Laboratories	**Client Sample ID:**	513418-001
Project Name:	Xenco	**Collection Date:**	8/13/2015 3:35:00 PM
Lab ID:	1508C55-001	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Inorganic Anions by IC E300.0								
Chloride	29.6	1.00		mg/L	R298204	1	08/14/2015 23:28	JW
Nitrogen, Nitrate (As N)	BRL	0.250		mg/L	R298204	1	08/14/2015 23:28	JW
Nitrogen, Nitrite (As N)	BRL	0.250		mg/L	R298204	1	08/14/2015 23:28	JW
Sulfate	35.4	1.00		mg/L	R298204	1	08/14/2015 23:28	JW

Qualifiers:

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

Analytical Environmental Services, Inc

Date: 21-Aug-15

Client:	Xenco Laboratories	**Client Sample ID:**	513418-008
Project Name:	Xenco	**Collection Date:**	8/13/2015 2:25:00 PM
Lab ID:	1508C55-002	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Inorganic Anions by IC E300.0								
Chloride	17.2	1.00		mg/L	R298218	1	08/15/2015 03:09	JW
Nitrogen, Nitrate (As N)	BRL	0.250		mg/L	R298218	1	08/15/2015 03:09	JW
Nitrogen, Nitrite (As N)	BRL	0.250		mg/L	R298218	1	08/15/2015 03:09	JW
Sulfate	73.8	1.00		mg/L	R298218	1	08/15/2015 03:09	JW

Qualifiers:

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

Analytical Environmental Services, Inc **Date:** 21-Aug-15

Client:	Xenco Laboratories	**Client Sample ID:**	513418-009
Project Name:	Xenco	**Collection Date:**	8/13/2015 12:00:00 PM
Lab ID:	1508C55-003	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Inorganic Anions by IC E300.0								
Chloride	13.0	1.00		mg/L	R298204	1	08/14/2015 23:43	JW
Nitrogen, Nitrate (As N)	4.78	0.250		mg/L	R298204	1	08/14/2015 23:43	JW
Nitrogen, Nitrite (As N)	BRL	0.250		mg/L	R298204	1	08/14/2015 23:43	JW
Sulfate	13.5	1.00		mg/L	R298204	1	08/14/2015 23:43	JW

Qualifiers:

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

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client XENCO LABORATORIES Work Order Number 1508255

Checklist completed by Miriam Ramirez 8/14/2015
Signature Date

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

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

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

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

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

Cooler #1 3.42 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

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

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

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

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

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

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

Adjusted? _____ Checked by MP

Sample Condition: Good ✓ Other(Explain) _____

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

See Case Narrative for resolution of the Non-Conformance.

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

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

Analytical Environmental Services, Inc

Client: Xenco Laboratories
Project Name: Xenco
Lab Order: 1508C55

Dates

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Pre
1508C55-001A	513418-001	8/13/2015 3:35:00PM	Aqueous	Inorganic Anions by IC		
1508C55-002A	513418-008	8/13/2015 2:25:00PM	Aqueous	Inorganic Anions by IC		
1508C55-003A	513418-009	8/13/2015 12:00:00PM	Aqueous	Inorganic Anions by IC		

Client: Xenco Laboratories
Project Name: Xenco
Workorder: 1508C55

ANALYTICAL C

Batc

Sample ID: **MB-R298204** Client ID: Units: **mg/L** Prep Date:
SampleType: **MBLK** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298204** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Chloride	BRL	1.00						
Nitrogen, Nitrate (As N)	BRL	0.250						
Nitrogen, Nitrite (As N)	BRL	0.250						
Sulfate	BRL	1.00						

Sample ID: **LCS-R298204** Client ID: Units: **mg/L** Prep Date:
SampleType: **LCS** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298204** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Chloride	9.753	1.00	10.00		97.5	90	110	
Nitrogen, Nitrate (As N)	5.321	0.250	5.000		106	90	110	
Nitrogen, Nitrite (As N)	5.222	0.250	5.000		104	90	110	
Sulfate	24.70	1.00	25.00		98.8	90	110	

Sample ID: **1508C55-001AMS** Client ID: **513418-001** Units: **mg/L** Prep Date:
SampleType: **MS** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298204** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Chloride	37.50	1.00	10.00	29.61	78.8	90	110	
Nitrogen, Nitrate (As N)	5.012	0.250	5.000		100	90	110	
Nitrogen, Nitrite (As N)	5.345	0.250	5.000		107	90	110	
Sulfate	56.45	1.00	25.00	35.39	84.3	90	110	

Sample ID: **1508C55-003AMS** Client ID: **513418-009** Units: **mg/L** Prep Date:
SampleType: **MS** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298204** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Chloride	22.25	1.00	10.00	12.98	92.7	90	110	

Qualifiers:

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

Analytical Environmental Services, Inc

Client: Xenco Laboratories
Project Name: Xenco
Workorder: 1508C55

ANALYTICAL C

Batc

Sample ID: **1508C55-003AMS** Client ID: **513418-009** Units: **mg/L** Prep Date:
SampleType: **MS** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298204** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Nitrogen, Nitrate (As N)	9.881	0.250	5.000	4.781	102	90	110	
Nitrogen, Nitrite (As N)	5.309	0.250	5.000		106	90	110	
Sulfate	37.85	1.00	25.00	13.49	97.4	90	110	

Sample ID: **1508C55-001AMSD** Client ID: **513418-001** Units: **mg/L** Prep Date:
SampleType: **MSD** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298204** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Chloride	38.39	1.00	10.00	29.61	87.8	90	110	37.50
Nitrogen, Nitrate (As N)	5.125	0.250	5.000		103	90	110	5.012
Nitrogen, Nitrite (As N)	5.567	0.250	5.000		111	90	110	5.345
Sulfate	57.13	1.00	25.00	35.39	86.9	90	110	56.45

Qualifiers:

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

Analytical Environmental Services, Inc

Client: Xenco Laboratories
Project Name: Xenco
Workorder: 1508C55

ANALYTICAL C

Batc

Sample ID: **MB-R298218** Client ID: Units: **mg/L** Prep Date:
SampleType: **MBLK** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298218** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Chloride	BRL	1.00						
Nitrogen, Nitrate (As N)	BRL	0.250						
Nitrogen, Nitrite (As N)	BRL	0.250						
Sulfate	BRL	1.00						

Sample ID: **LCS-R298218** Client ID: Units: **mg/L** Prep Date:
SampleType: **LCS** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298218** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Chloride	9.839	1.00	10.00		98.4	90	110	
Nitrogen, Nitrate (As N)	5.478	0.250	5.000		110	90	110	
Nitrogen, Nitrite (As N)	5.202	0.250	5.000		104	90	110	
Sulfate	26.31	1.00	25.00		105	90	110	

Sample ID: **1508C55-002AMS** Client ID: **513418-008** Units: **mg/L** Prep Date:
SampleType: **MS** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298218** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Chloride	28.30	1.00	10.00	17.22	111	90	110	
Nitrogen, Nitrate (As N)	5.520	0.250	5.000	0.2196	106	90	110	
Nitrogen, Nitrite (As N)	5.953	0.250	5.000		119	90	110	

Sample ID: **1508C55-002AMS** Client ID: **513418-008** Units: **mg/L** Prep Date:
SampleType: **MS** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298218** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Sulfate	312.9	10.0	250.0	71.54	96.5	90	110	

Qualifiers:

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

Analytical Environmental Services, Inc

Client: Xenco Laboratories
Project Name: Xenco
Workorder: 1508C55

ANALYTICAL C

Batc

Sample ID: **1508C55-002AMSD** Client ID: **513418-008** Units: **mg/L** Prep Date:
SampleType: **MSD** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298218** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Chloride	27.38	1.00	10.00	17.22	102	90	110	28.30
Nitrogen, Nitrate (As N)	5.509	0.250	5.000	0.2196	106	90	110	5.520
Nitrogen, Nitrite (As N)	5.894	0.250	5.000		118	90	110	5.953

Sample ID: **1508C55-002AMSD** Client ID: **513418-008** Units: **mg/L** Prep Date:
SampleType: **MSD** TestCode: **Inorganic Anions by IC E300.0** BatchID: **R298218** Analysis Date: **08**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Va
Sulfate	314.3	10.0	250.0	71.54	97.1	90	110	312.9

Qualifiers:

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

APPENDIX B

WELL PURGING RECORDS

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: RHeem

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page ___ of ___

Well ID: EW 1

Field Sampling Personnel: Gazzo

Depth to Screen below MP: _____ of screen Top _____ of screen Bottom

Pump Intake at (ft. below MP): _____

Purging Device (Pump Type): _____
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/13/15	1505	11.47	500	5.06	.188	86	3.65	23.78	112	—			3.4 Gal = 3 well volumes
	1510	11.51	500	5.05	.188	47	3.40	23.64	125	.66			
	1515	11.50	500	4.96	.183	8	3.37	23.84	191	1.32			
	1520	11.51	500	4.91	.180	.2	3.57	23.92	225	1.98			
	1525	11.51	500	4.93	.184	0	3.46	23.90	247	2.64			
	1530	11.50	500	4.95	.187	0	3.37	23.86	274	3.30			
	1535	11.50	500	4.95	.187	0	3.37	23.83	274	3.96			

1535 Sample Time

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):
±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Rifcon

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location:

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page ___ of ___

Well ID: EW2

Field Sampling Personnel: GAZZO

Depth to Screen below MP: 5 of screen Top — 15 of screen Bottom

Pump Intake at (ft. below MP): 13'

Purging Device (Pump Type): GEOSUB
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/11/15	1320	8.42	600	4.66	.178	NA	.53	23.53	211	—			3 well volume = 3.3 Gal
	1325	8.49	600	4.66	.156	522	3.39	23.22	219	.80			
	1330	8.62	600	4.44	.142	62	0.15	22.82	245	1.60			
	1335	8.63	600	4.45	.140	12	.05	22.79	249	2.40			
	1340	8.63	600	4.46	.140	8	.04	22.78	250	3.20			
				1340 Sample Time									

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

RHeem

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location:

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page ___ of ___

Well ID: EW 3

Field Sampling Personnel: GARZA

Depth to Screen below MP: _____ of screen Top 9' _____ of screen Bottom

Pump Intake at (ft. below MP): _____

Purging Device (Pump Type): GEOSUB
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time	Depth to Water Below MP	Purge Rate	pH	Spec Cond.	Turbidity	DO Flow cell	Temp.	Redox Potential	Cum. Volume Purged			Comments
	24 hr	ft	mL/min	pH units	mS/cm	NTUs	mg/L	°C	mV	gallons			
8/11/15	1530	6.97	600	6.47	.326	25	.28	26.65	4 ~~32~~	~			I could not Get
	1535	9.58	600	6.44	.309	12	.15	26.59	32	.80			the Pump low enough
	1540	9.72	600	6.43	.301	3	.08	26.27	42	1.60			of flow rate
	1545	9.91	600	6.43	.297	3	.04	26.22	45	2.40			
	1550	9.97	600	6.43	.297	4	.03	26.22	44	3.20			3well volumes = 2.7 Gal
			1550 Sample Time										

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: Rheem

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page ___ of ___

Well ID: EW-4

Field Sampling Personnel: GAUG

Depth to Screen below MP: _____ of screen Top _____ of screen Bottom

Pump Intake at (ft. below MP): 12'

Purging Device (Pump Type): GeoSub
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate 600 mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/11/15	1420	8.84	~~[illegible]~~	4.66	.108	90	.35	27.77	273	—			3 well volumes = 2.7 GAL
	1425	8.89	600	5.00	.100	62	.15	27.85	266	80			
	1430	8.90	600	5.20	.101	26	.10	27.92	265	1.60			
	1435	8.86	600	5.34	.103	69	.07	27.89	253	2.40			
	1440	8.86	600	5.43	.104	47	.04	27.93	250	3.20			
	1445	8.86	600	5.46	.105	19	.02	27.94	255	4.00			
	1450	8.86	600	4.46	.105	7	.02	27.93	254	4.80			

1450 Sample Time

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: R Heom

Well ID: EWS

Field Sampling Personnel: Gazzo

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

Depth to Screen below MP: _____ of screen Top _____ of screen Bottom

Pump Intake at (ft. below MP):

Purging Device (Pump Type):
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

page ___ of ___

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/12/10	1540	3.55	600	6.29	148	94	49	23.48	37	—			2.3 GAL = 3 well volumes
	1545	3.61	600	6.23	142	40	.12	23.21	30	.80			
	1550	3.61	600	6.23	142	36	.06	23.10	26	1.60			
	1555	3.61	600	6.23	140	30	.06	23.10	23	2.40			
	1600	3.60	600	6.23	139	30	.05	23.21	23	3.20			
				1600	Sample Time								

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: R Heem

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page ___ of ___

Well ID: EW6

Field Sampling Personnel: G [illegible]

Depth to Screen below MP: _____ of screen (Top) _____ of screen (Bottom)

Pump Intake at (ft. below MP): _____

Purging Device (Pump Type): _____
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/12/15	1435	3.27	200	6.08	.130	180	.74	23.59	25	—			3.3 Gal = 3 well volumes.
	1440	4.40	200	5.94	.130	144	.21	23.04	25	.26			
	1445	4.41	200	5.90	.129	76	.10	23.09	22	.52			
	1450	4.42	200	5.89	.129	48	.02	23.09	19	.78			
	1455	4.42	200	5.88	.129	26	.00	23.18	17	1.04			
	1500	4.43	200	5.89	.129	22	.00	23.20	15	1.30			
	1505	4.44	200	5.89	.129	10	.00	23.16	15	1.56			
	1510	4.43	200	5.89	.129	7	.00	23.10	14	1.82			
				1510	Sample well.								

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):
±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: R Heem

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page ___ of ___

Well ID: EW 7

Field Sampling Personnel: [illegible]

Depth to Screen below MP: _____ of screen Top _____ of screen Bottom

Pump Intake at (ft. below MP): Bottom - there was no Recharge.

Purging Device (Pump Type): _____
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/10/10	1335	5.13	200	6.04	.157	779	.87	24.68	-3	—			2.4 Gal = 3 well volumes.
	1340	5.98	200	6.32	.162	1000	.87	24.31	-20	.26			
	1345	6.90	200	6.32	.165	649	.20	24.22	-29	.52			
	1350	7.60	200	6.29	.166	562	.10	23.79	-37	.78			
	1355	8.40	200	6.35	.164	241	.00	23.16	-46	1.04			
	1400	8.85	200	6.36	.160	806	.05	22.86	-46	1.30			
	1405	9.65	200	6.34	.159	447	.00	22.78	-40	1.56	DRY.		

1430 well had Recharged and sample was Taken

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: R Hcam

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page ___ of ___

Well ID: GW1

Field Sampling Personnel: GPZZ

Depth to Screen below MP: _____ of screen Top _____ of screen Bottom

Pump Intake at (ft. below MP):

Purging Device (Pump Type):
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate 500 mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum Volume Purged gallons			Comments
8/13/15	1120	12.37	~~538~~	5.31	.120	137	3.39	22.19	288	—			15.4 Gal = 3 well volumes.
	1125	12.90	500	4.90	.121	33	.52	21.52	296	.66			
	1130	12.91	500	4.77	.123	20	.33	21.47	313	1.32			
	1135	12.90	500	4.68	.124	11	.17	21.40	332	1.98			
	1140	12.91	500	4.67	.125	7	.07	21.42	339	2.64			
	1145	12.91	500	4.67	.125	6	.02	21.33	344	3.30			
	1150	12.91	500	4.68	.126	4	.00	21.32	347	3.96			
	1155	12.91	500	4.68	.126	2	.00	21.32	347	4.62			
	1200	12.91	500	4.70	.125	5	.00	21.32	342	5.28			
					1200	Sample Time							

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: R Heam

Well ID: GW 4

Field Sampling Personnel: GPZ00

Identify Measuring Point (MP): _____
(e.g. Top of Casing)

Depth to Screen below MP: _____ of screen Top _____ of screen Bottom

Pump Intake at (ft. below MP): _____

Purging Device (Pump Type): _____
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

page ___ of ___

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/12/10	1150	11.59	300	4.81	.129	48	.84	20.82	211	—			3.7 Gal = 3 well volumes.
	1155	12.10	300	4.57	.131	31	.33	20.34	260	.40			
	1200	12.13	300	4.68	.128	25	.06	20.10	252	.80			
	1205	12.13	300	4.60	.129	12	.06	20.13	253	1.20			
	1210	12.20	300	4.41	.128	5	.05	21.16	284	2.00	1.6 Gal		
	1215	12.21	300	4.41	.127	1	.04	21.31	278	2.00			
	1220	12.20	300	4.41	.128	1	.04	21.29	275	2.40			
	1225	12.20	300	4.42	.127	1	.05	21.29	275	2.80			
				1225	Sample Time								

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: RHeem

Well ID: GW 5

Field Sampling Personnel: GHZW

Identify Measuring Point (MP): _____
(e.g. Top of Casing)

Depth to Screen below MP: _____ of screen Top _____ of screen Bottom

Pump Intake at (ft. below MP): _____

Purging Device (Pump Type): _____
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

page ___ of ___

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/12/10	1055	~~14.7~~	500	5.49	.166	130	.52	21.97	150				3 well volumes = 3 Gal
	~~1100~~	1320											
	1100	1395	250	5.03	.167	53	.24	22.26	178	.33			
	1105	14.01	250	4.98	.167	36	.13	22.42	195	.66			
	1110	14.02	250	4.98	.168	28	.12	22.46	194	.99			
	1115	14.02	250	4.99	.167	5	.10	22.74	191	1.32			
	1120	14.02	250	4.99	.167	4	.09	22.77	190	1.65			
			1120	Sample Time									

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: R Heem

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page ___ of ___

Well ID: GW7

Field Sampling Personnel: GAZZO

Depth to Screen below MP: _____ of screen (Top) _____ of screen (Bottom)

Pump Intake at (ft. below MP): _____

Purging Device (Pump Type): _____
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/13/15	1245	11.33	600	6.76	.233	48	.48	21.25	-19	—			11 GAL = 3 well volumes
	1250	11.52	600	6.90	.235	46	.28	20.94	-33	.80			
	1255	11.53	600	7.10	.237	41	.00	20.68	-57	1.60			
	1300	11.53	600	7.16	.238	35	.00	20.71	-73	2.40			
	1305	11.53	600	7.18	.238	29	.00	20.66	-77	3.00			
	1310	11.53	600	7.18	.240	19	.00	20.54	-77	3.80			
	1315	11.54	600	7.18	.240	7	.00	20.54	-77	4.60			
	1320	11.52	600	7.18	.240	5	.00	20.54	-77	5.40			
	1325	11.52	600	7.14	.236	3	.00	20.51	-79	6.20			
	1330	11.54	600	7.15	.236	2	.00	20.51	-79	7.00			
	1335	11.54	600	7.17	.236	2	.00	20.51	-79	7.80			

1335 Sample Time

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):
±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Rheem

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location:

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

page ___ of ___

Well ID: GW 10

Field Sampling Personnel: GAZOO

Depth to Screen below MP: _____ of screen (Top) _____ of screen (Bottom)

Pump Intake at (ft. below MP):

Purging Device (Pump Type):
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate 600 mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/12/11	0955	9.95	~~7.18~~	7.06	.170	53	5.27	21.74	54	—			3 Well Volumes = 11 GAL
	1000	10.72	600	6.49	.174	39	3.38	20.76	65	.80			
	1005	10.74	1000	6.38	.176	59	.9	20.12	64	~~1.60~~ 2.12			
	1010	10.76	1000	6.33	.176	90	.01	20.07	62	3.44			
	1015	10.76	1000	6.27	.182	60	.01	18.94	62	4.76			
	1020	10.73	1000	6.28	.183	40	.04	18.95	61	6.08			
	1025	10.72	1000	6.28	.183	30	.04	18.94	60	7.30			
	1030	10.73	1000	6.28	.183	9	.05	18.90	57	8.62			
					1030	Sample Time							

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

Attachment 4.4

WELL PURGING - FIELD WATER QUALITY MEASUREMENTS FORM

Location: Rheem

Well ID: W-5

Field Sampling Personnel: GARR

Identify Measuring Point (MP): TOC
(e.g. Top of Casing)

Depth to Screen below MP: _____ of screen Top _____ of screen Bottom

Pump Intake at (ft. below MP): _____

Purging Device (Pump Type): _____
(e.g. Dedicated pump, peristaltic pump, bailer, bladder pump, etc.)

page ___ of ___

Date	Time 24 hr	Depth to Water Below MP ft	Purge Rate mL/min	pH pH units	Spec Cond. mS/cm	Turbidity NTUs	DO Flow cell mg/L	Temp. °C	Redox Potential mV	Cum. Volume Purged gallons			Comments
8/13/15	1350	10.12	500	5.55	.220	642	1.91	20.72	156	—			5 Gal = 3 well volumes
	1355	10.48	500	4.78	.241	501	.28	20.10	235	.66			
	1400	10.51	500	4.74	.237	500	.05	20.10	257	1.32			
	1405	10.51	500	4.66	.238	0	.06	19.97	276	1.98			
	1410	10.52	500	4.72	.233	3	.00	19.95	99	2.64			
	1415	10.52	500	4.71	.233	1.8	.00	19.91	96	3.30			
	1420	10.51	500	4.76	.231	.5	.07	20.21	92	3.96			
	1425	10.51	500	4.70	.231	.5	.06	20.03	92	4.62			
				1425	Sample Time								

Notes:
Note when "Stabilization " has occurred. Stabilization Criteria (achieved after a minimum of three successive readings):

±0.1 for pH
±10 mV for redox
±3% for specific cond.
±10% for DO
<20 NTUs for turbidity
NA for temperature

If stabilization does not occur within 2 hours, contact Site Manager for action.
If well goes dry prior to stabilization, stop, allow well to recharge, and collect sample.

040002.03

APPENDIX C

GROUNDWATER MODELING OUTPUT SHEETS

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

Rheem
Savannah, Georgia
Run Name

Data Input Instructions:

115 → 1. Enter value directly....or
↑ or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then (C)
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	14.5	(ft/yr)
or			
Hydraulic Conductivity	K	5.6E-04	(cm/sec)
Hydraulic Gradient	i	0.005	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	82.5	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R

or

Soil Bulk Density, rho	1.6	(kg/L)		
FractionOrganicCarbon, foc	1.0E-5	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	1.03	(-)
TCE	130	(L/kg)	1.01	(-)
DCE	125	(L/kg)	1.01	(-)
VC	30	(L/kg)	1.00	(-)
ETH	302	(L/kg)	1.02	(-)
Common R (used in model)* =			**1.00**	

4. BIOTRANSFORMATION -1st Order Decay Coefficient*

Zone 1	λ (1/yr)	half-life (yrs)	Yield
PCE → TCE	0.099	7.00	0.79
TCE → DCE	0.139	5.00	0.74
DCE → VC	0.173	4.00	0.64
VC → ETH	1.386	0.50	0.45

Zone 2	λ (1/yr)	half-life (yrs)
PCE → TCE	0.000	
TCE → DCE	0.000	
DCE → VC	0.000	
VC → ETH	0.000	

λ HELP

5. GENERAL

Simulation Time*	48	(yr)
Modeled Area Width*	750	(ft)
Modeled Area Length*	1100	(ft)
Zone 1 Length*	1100	(ft)
Zone 2 Length*	0	(ft)

L, W

Zone 2= L - Zone 1

6. SOURCE DATA TYPE: Decaying Single Planar

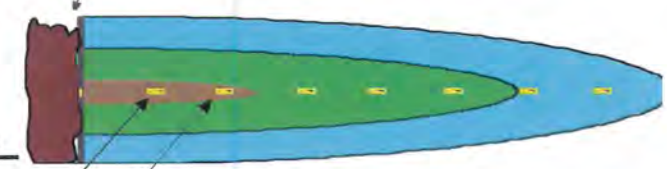
Source Options

Source Thickness in Sat. Zone* 10 (ft)

Width* (ft) Y1 75

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE	1.8	0.01
TCE	.04	0.01
DCE	.03	0.01
VC	.001	0.01
ETH		0.01

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

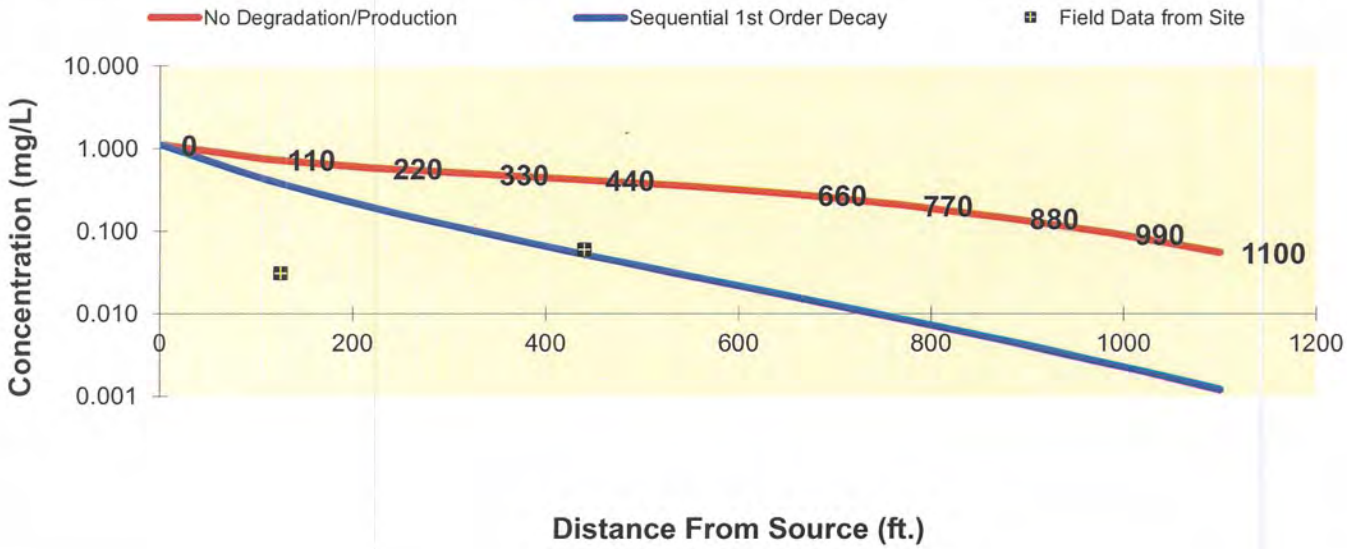
PCE Conc. (mg/L)	.031	.06	.0								
TCE Conc. (mg/L)	.021	.034	.007								
DCE Conc. (mg/L)	.01	.004	.006								
VC Conc. (mg/L)	.0	.0	.0								
ETH Conc. (mg/L)											
Distance from Source (ft)	125	440	825								
Date Data Collected	2015										

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | RUN ARRAY | Help | Restore | RESET | SEE OUTPUT | Paste

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

PCE	Distance from Source (ft)										
	0	110	220	330	440	550	660	770	880	990	1100
No Degradation	1.114	0.738	0.580	0.490	0.417	0.346	0.275	0.206	0.144	0.093	0.056
Biotransformation	1.1138	0.422	0.194	0.098	0.052	0.029	0.016	0.009	0.005	0.002	0.001
	Monitoring Well Locations (ft)										
	125	440	825								
Field Data from Site	0.031	0.060	0.000								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

48.0 Years

Log ⟺ Linear

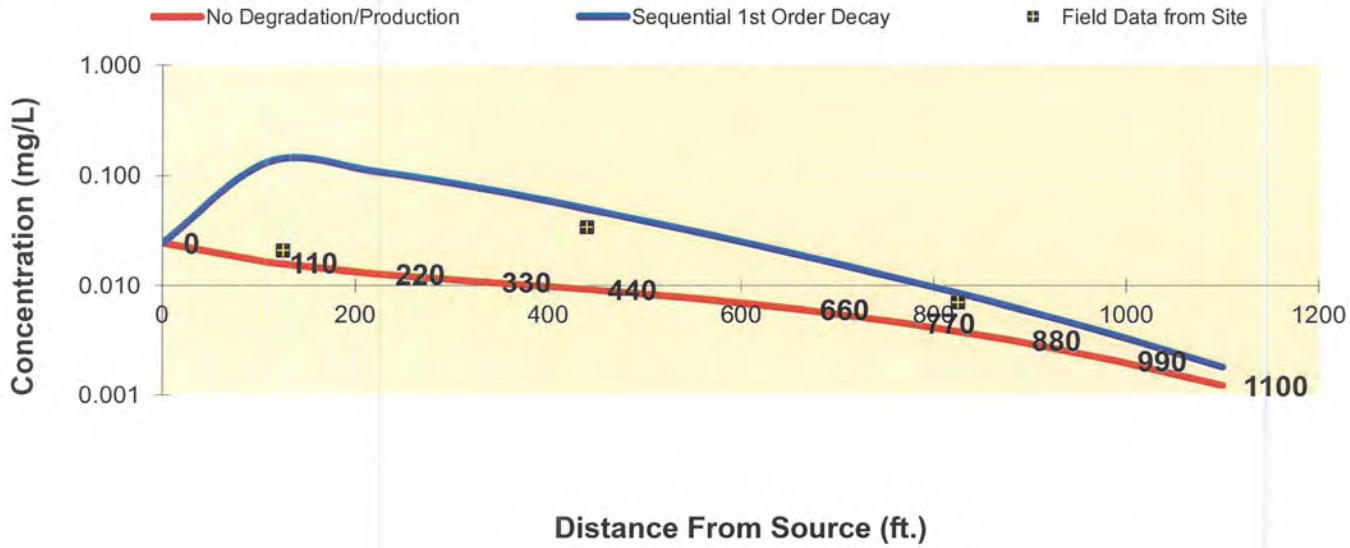
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	110	220	330	440	550	660	770	880	990	1100
No Degradation	0.025	0.016	0.013	0.011	0.009	0.008	0.006	0.005	0.003	0.002	0.001
Biotransformation	0.0248	0.133	0.109	0.076	0.050	0.031	0.019	0.011	0.006	0.004	0.002
	Monitoring Well Locations (ft)										
	125	440	825								
Field Data from Site	0.021	0.034	0.007								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

48.0 Years

Log ⟺ Linear

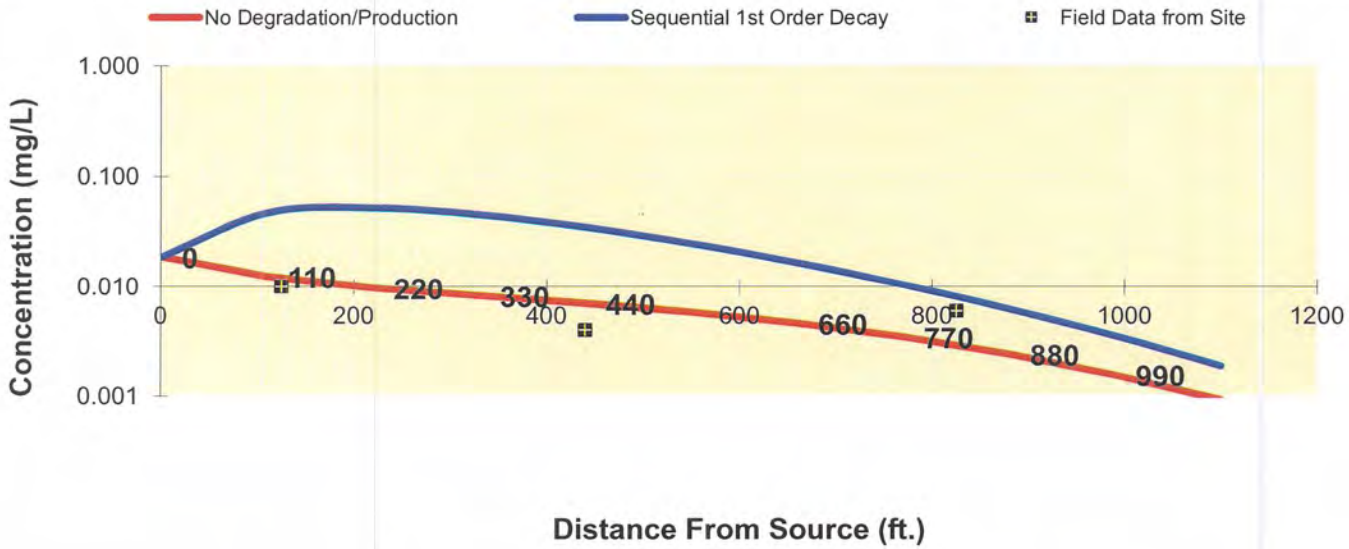
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

DCE	Distance from Source (ft)										
	0	110	220	330	440	550	660	770	880	990	1100
No Degradation	0.019	0.012	0.010	0.008	0.007	0.006	0.005	0.003	0.002	0.002	0.001
Biotransformation	0.0186	0.047	0.052	0.045	0.035	0.025	0.016	0.010	0.006	0.004	0.002
	Monitoring Well Locations (ft)										
	125	440	825								
Field Data from Site	0.010	0.004	0.006								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

48.0 Years

Log ⟺ Linear

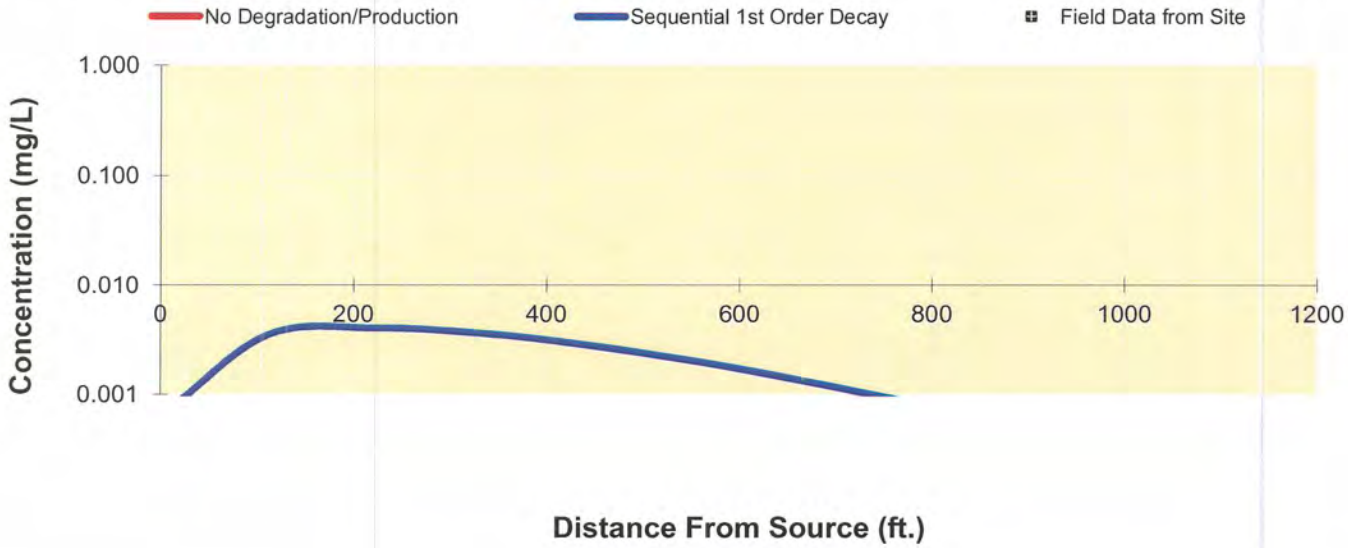
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

VC	Distance from Source (ft)										
	0	110	220	330	440	550	660	770	880	990	1100
No Degradation	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0006	0.003	0.004	0.004	0.003	0.002	0.001	0.001	0.001	0.000	0.000
	Monitoring Well Locations (ft)										
	125	440	825								
Field Data from Site	0.000	0.000	0.000								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:
48.0 Years
Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

Rheem
Savannah, Georgia
Run Name

Data Input Instructions:

115 ← 1. Enter value directly....or
↑ or
0.02 ← 2. Calculate by filling in gray cells. Press Enter, then (C)

(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	14.5	(ft/yr)
or			
Hydraulic Conductivity	K	5.6E-04	(cm/sec)
Hydraulic Gradient	i	0.005	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	82.5	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R

or

Soil Bulk Density, rho	1.6	(kg/L)		
FractionOrganicCarbon, foc	1.0E-5	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	1.03	(-)
TCE	130	(L/kg)	1.01	(-)
DCE	125	(L/kg)	1.01	(-)
VC	30	(L/kg)	1.00	(-)
ETH	302	(L/kg)	1.02	(-)
Common R (used in model)* =			**1.01**	

4. BIOTRANSFORMATION -1st Order Decay Coefficient*

Zone 1	λ (1/yr)	half-life (yrs)	Yield
PCE → TCE	0.099	7.00	0.79
TCE → DCE	0.139	5.00	0.74
DCE → VC	0.173	4.00	0.64
VC → ETH	1.386	0.50	0.45

Zone 2	λ (1/yr)	half-life (yrs)
PCE → TCE	0.000	
TCE → DCE	0.000	
DCE → VC	0.000	
VC → ETH	0.000	

λ HELP

5. GENERAL

Simulation Time*	98	(yr)
Modeled Area Width*	750	(ft)
Modeled Area Length*	1100	(ft)
Zone 1 Length*	1100	(ft)
Zone 2 Length*	0	(ft)

L, W

Zone 2= L - Zone 1

6. SOURCE DATA TYPE: Decaying Single Planar

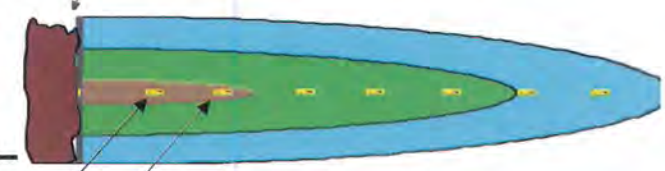
Source Options

Source Thickness in Sat. Zone* 10 (ft)

Width* (ft) Y1 75

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE	1.8	0.01
TCE	.04	0.01
DCE	.03	0.01
VC	.001	0.01
ETH		0.01

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

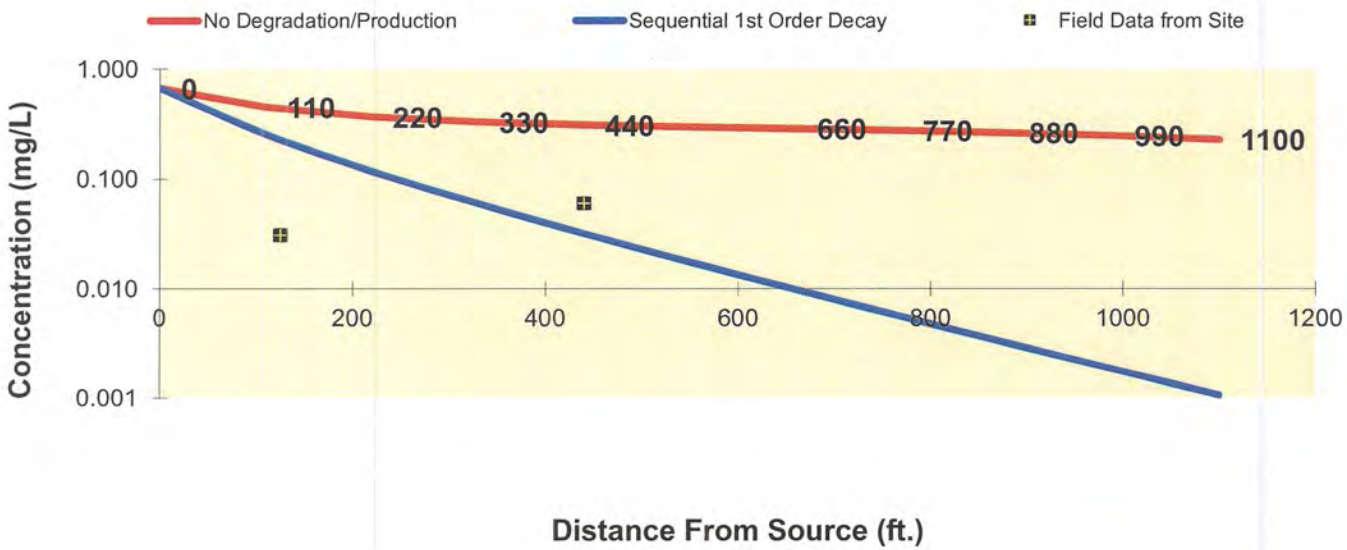
PCE Conc. (mg/L)	.031	.06	.0
TCE Conc. (mg/L)	.021	.034	.007
DCE Conc. (mg/L)	.01	.004	.006
VC Conc. (mg/L)	.0	.0	.0
ETH Conc. (mg/L)			
Distance from Source (ft)	125	440	825
Date Data Collected	2015		

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | RUN ARRAY | Help | Restore | RESET | SEE OUTPUT | Paste

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

PCE	Distance from Source (ft)										
	0	110	220	330	440	550	660	770	880	990	1100
No Degradation	0.676	0.455	0.369	0.332	0.312	0.298	0.288	0.277	0.265	0.249	0.230
Biotransformation	0.6756	0.256	0.118	0.060	0.032	0.018	0.010	0.006	0.003	0.002	0.001
	Monitoring Well Locations (ft)										
	125	440	825								
Field Data from Site	0.031	0.060	0.000								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

98.0 Years

Log ⟺ Linear

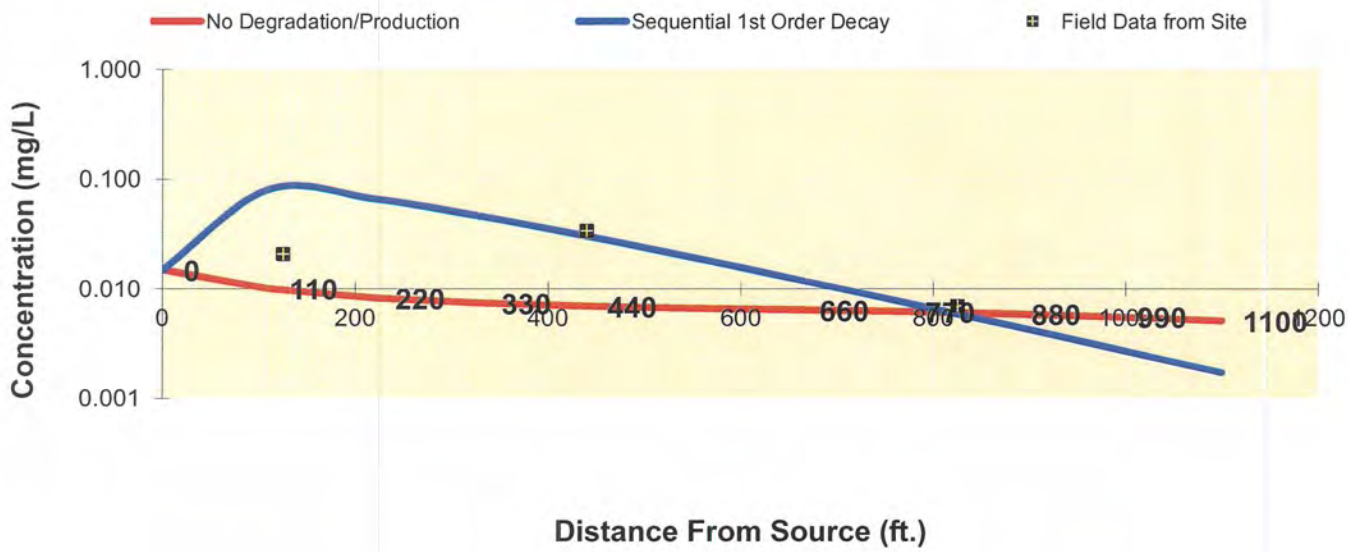
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	110	220	330	440	550	660	770	880	990	1100
No Degradation	0.015	0.010	0.008	0.007	0.007	0.007	0.006	0.006	0.006	0.006	0.005
Biotransformation	0.0150	0.081	0.066	0.047	0.031	0.020	0.012	0.008	0.005	0.003	0.002
	Monitoring Well Locations (ft)										
	125	440	825								
Field Data from Site	0.021	0.034	0.007								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

98.0 Years

Log ⟺ Linear

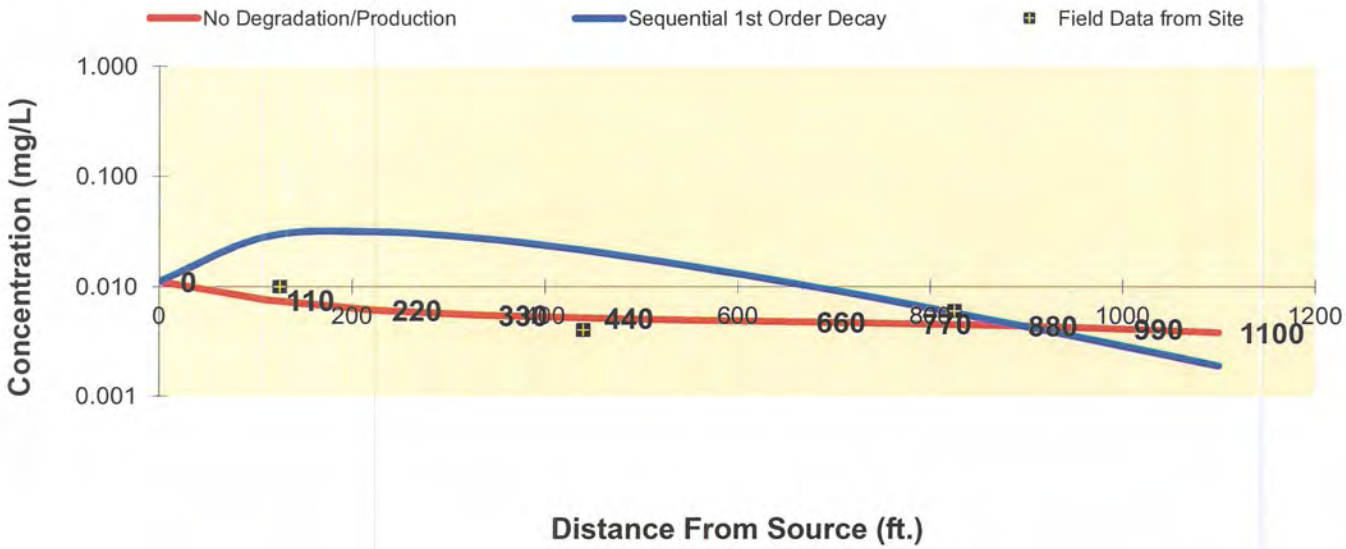
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

DCE	Distance from Source (ft)										
	0	110	220	330	440	550	660	770	880	990	1100
No Degradation	0.011	0.008	0.006	0.006	0.005	0.005	0.005	0.005	0.004	0.004	0.004
Biotransformation	0.0113	0.028	0.032	0.028	0.021	0.015	0.011	0.007	0.005	0.003	0.002
	Monitoring Well Locations (ft)										
	125	440	825								
Field Data from Site	0.010	0.004	0.006								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

98.0 Years

Log ⟺ Linear

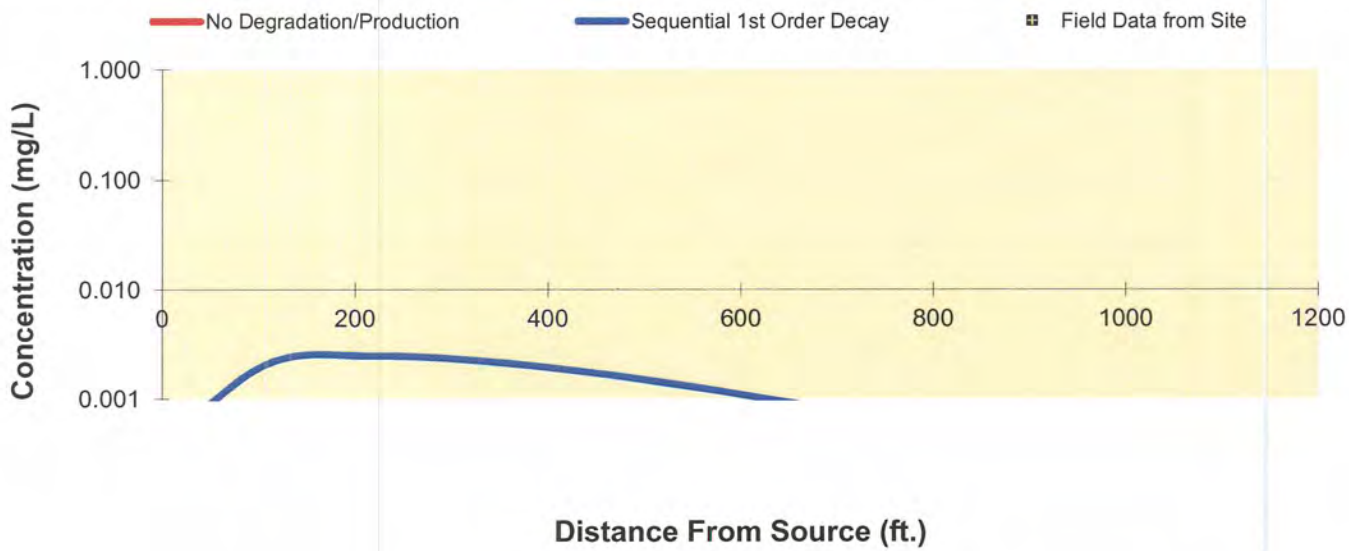
Return to Input

To All

To Array

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

VC	Distance from Source (ft)										
	0	110	220	330	440	550	660	770	880	990	1100
No Degradation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0004	0.002	0.002	0.002	0.002	0.001	0.001	0.001	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	125	440	825								
Field Data from Site	0.000	0.000	0.000								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:
98.0 Years
Log ⟺ Linear

Return to Input

To All

To Array

APPENDIX D

PG SUPPORTING DOCUMENTATION

Stephen R. Foley, P.G.
Summary of Hours and Services
Former Rheem Manufacturing Site
HSI Site No. 10208
Amec Foster Wheeler Project No. 6121-09-0220

Hours for post-approval Voluntary Remediation Plan implementation

Preparation of October 2015 Semi-Annual VRP Progress Report

20 hours invoiced between September 9, 2015 and October 16, 2015