VOLUNTARY REMEDIATION PROGRAM STATUS REPORT NO. 4

Former Automatic Sprinkler Site
162 East Meadowlake Parkway
Swainsboro, Emanuel County, Georgia
HSI Site No. 10268

Submitted to:
Georgia Department of Natural Resources
Environmental Protection Division
Hazardous Site Response and Remediation Branch
Suite 1462, East Tower
2 Martin Luther King Jr. Drive, SE
Atlanta Georgia 30334

Submitted by:
Scott Technologies, Inc.
9 Roszel Road
Princeton, New Jersey 08540

Prepared by:
AMEC Environment & Infrastructure, Inc.
1075 Big Shanty Road
Kennesaw, Georgia 30144

February 20, 2014

AMEC Project No. 6125-08-0149

February 20, 2014

Mr. David Brownlee
Georgia Environmental Protection Division
Response and Remediation Program
2 Martin Luther King Jr. Drive, Suite 1462 East Tower
Atlanta, Georgia 30334

Subject: **Voluntary Remediation Plan Status Report No. 4**
Former Automatic Sprinkler Site, Swainsboro, Georgia
HSI Site No. 10268
AMEC Project 6125080149

Dear Mr. Brownlee:

AMEC Environment & Infrastructure, Inc. is pleased to provide Georgia Environmental Protection Division with the attached Status Report No.4 for Voluntary Remediation Program activities for the Former Automatic Sprinkler Site in Swainsboro, Emanuel County, Georgia (HSI Site No. 10268). The report covers the activities conducted between September and December 2013.

Should you have any questions, please contact us at (770) 421-3400.

Sincerely,

AMEC Environment & Infrastructure, Inc.

Tanya Kinnard, CHMM
Senior Professional

Gregory J. Wrenn, P.E.
Associate/Project Manager

GJW:dp

Attachment: VRP Status Report No. 4

cc: Stuart Rixman, Tyco International
Anita Bucci, Kongsberg Automotive
Jack Bareford, Swainsboro Emanuel County Joint Development Authority

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1.0 PE CERTIFICATION

"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/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists 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."

Gregory J. Wrenn/ Georgia P.E. #25565 — February 20, 2014

Printed Name and GA PE Number — Date

GEORGIA REGISTERED No. 025565 PROFESSIONAL ENGINEER GREGORY J. WRENN

Signature and Stamp

2.0 INTRODUCTION AND BACKGROUND

This Voluntary Remediation Program Semi-Annual Status Report No. 4 (Status Report) was prepared in accordance with the Voluntary Remediation Program (VRP) for the Scott Technologies site, Hazardous Site Inventory (HSI) No.10268. The Georgia Environmental Protection Division (EPD) letter, dated February 24, 2012, accepted the site into the VRP and requested submittal of semi-annual VRP status reports. This fourth Status Report covers the activities conducted subsequent to Semi-Annual Status Report No. 3 submitted to the EPD in August 2013.

The site is located at 162 East Meadowlake Parkway, Swainsboro, Georgia. Figure 1 shows the site location. Figure 2 presents the site layout, existing monitoring well locations, and previous surface water sampling locations. This 6.91-acre property is part of a larger industrial development located southeast of the center of Swainsboro. East Meadowlake Parkway forms the northern boundary of the site. Approximately 47 acres of undeveloped land are located north of the site and East Meadowlake Parkway. A publicly owned wastewater treatment plant is located to the northwest. A manufacturing facility occupies property to the east. Space Place road and another industrial facility (Space Place) are located to the south.

Before 1967, the property was agricultural or lightly wooded land. The property was initially developed by Automatic Sprinkler Corporation of America (ASCOA), a subsidiary of Figgie International, Inc. Figgie International changed its name to Scott Technologies, Inc. (STI). STI Properties, Inc. is an affiliate of Scott Technologies, Inc. and is responsible for their real estate operations. In 2001, Tyco Fire Protection Products acquired STI, but STI is the legal entity responsible for addressing the environmental issues related to operations of the former ASCOA site. The operation at 162 East Meadowlake Parkway reportedly began in 1967 and continued until approximately 1992. In 1994, the property ownership was transferred to the Swainsboro-Emanuel County Joint Development Authority. The Swainsboro-Emanuel County Joint Development Authority currently owns the property and leases the facility to Kongsberg Automotive. Kongsberg Automotive manufactures engine parts at the facility.

Early environmental investigations (1997 through 2000) were focused on metal (lead and zinc) impacts to soils. Soils with lead and zinc impacts were excavated and disposed of properly. Confirmation sampling indicated that the formerly metal-impacted areas complied with Type 3 Risk Reduction Standards (RRS). However, during the course of the investigations, volatile organic compounds (VOCs) were detected in the subsurface. The VOC impacts have been the primary focus of the recent environmental work at the site. A summary of applicable RRS is included as Table 1. The environmental history of the site is summarized as follows:

- The site was used for manufacturing fire control components from 1967 to 1992.
- The site was listed on the Georgia Hazardous Site Inventory (HSI) in June 1994.
- Figgie Properties conveyed the property to the Swainsboro-Emmanuel County Joint Development Authority in November 1994.
- A Consent Order for assessment/remediation of the site under the Georgia Hazardous Site Response Act (HSRA) was executed between Georgia EPD and Figgie Properties in October 1997.

- Assessment and remediation activities were conducted between 1998 and 2002, including the removal of metal-impacted soil, and two short-term multi-phase extraction events, which removed volatile organic compounds (VOCs) in soil vapor and groundwater from a small isolated “hot spot” around MW-8.
- A Corrective Action Plan (CAP) containing contaminant transport modeling and proposing to address VOC-impacted groundwater via monitored natural attenuation (MNA) was submitted to EPD in December 2002. BIOCHLOR (an EPA model for predicting potential chlorinated VOC concentrations over time and distance) was used to evaluate the fate and transport of VOCs in groundwater. The U.S. Environmental Protection Agency (EPA) MNA Screening Matrix screening score indicated “strong evidence for natural anaerobic biodegradation of chlorinated constituents.”
- EPD approved MNA as a potentially appropriate corrective action in August 2003 and requested continued MNA monitoring to evaluate trends in contaminant concentrations.
- MNA demonstration monitoring was conducted between 2003 and 2010.
- In February 2011, based upon the predicted 74-year remedial period, the HSRA program requested evaluation of corrective action enhancements to reduce the clean-up time.
- In April 2011, STI submitted the VRP Application in order to enroll in the Georgia Voluntary Remediation Program. An EPD comment letter dated September 8, 2011 requesting additional information resulted in a VRP Application Addendum submitted by STI on November 14, 2011. EPD letters dated February 24, 2012 accepted STI into the VRP and put forth comments to be addressed during implementation of the VRP.
- VRP Status Report No. 1 and responses to EPD comments (February 24, 2012) were submitted to EPD on August 23, 2012.
- EPD issued comments on the VRP Status Report No. 1 in correspondence dated December 27, 2012.
- VRP Status Report No. 2 and responses to EPD comments (December 27, 2012) were submitted to EPD on February 20, 2013.
- EPD issued comments on VRP Status Report No. 2 in correspondence dated April 9, 2013.
- A 24-hour high vacuum extraction (HVE) event was conducted beginning on April 30, 2013 using MW-8 and MW-19 as extraction wells. Approximately 1,600 gallons of fluid were recovered during the HVE event. The extracted fluids were treated on-site using an air stripper and then transported to the Swainsboro publicly owned treatment works (POTW) for disposal followed confirmation of treatment to acceptable levels.
- VRP Status Report No. 3, which addressed EPD comments dated April 9, 2013, was submitted to EPD on August 14, 2013
- EPD issued comments on VRP Status Report No. 3 in correspondence dated September 13, 2013, which are addressed herein.

3.0 WORK PERFORMED DURING REPORTING PERIOD

The activities currently identified to be conducted at the STI site under the VRP are outlined in the VRP Application and VRP Application Addendum, dated April 29, 2011, and November 14, 2011, respectively, and the EPD VRP approval and comment letters dated February 24, 2012. A groundwater and surface water sampling event was conducted at the site in December 2013. Additional sampling was conducted to further evaluate the oily substance observed in monitoring well MW-10 during the December 2012 sampling event. These activities are described herein.

3.1 Financial Assurance Update

Documentation of financial assurance for implementation of the VRP at the site was submitted to EPD on May 30, 2012. The financial assurance mechanism is an irrevocable letter of credit for $525,000, which is well in excess of the $190,000 estimated cost to implement the VRP submitted in the VRP Application Addendum. The letter of credit automatically renews each year on March 25. An updated estimated cost to implement the VRP is included as Table 2. A contingency for conducting three additional HVE events was added to the estimate. The current estimated cost for continued VRP implementation is $176,540. Based upon the current site data, the financial assurance appears sufficient for completion of the VRP implementation at the site.

3.2 Groundwater and Surface Water Sampling

Groundwater and surface water sampling was conducted on December 3-5, 2013. Prior to collecting groundwater samples, the depth to water was measured in the site monitoring wells. The depth to water measurements and corresponding groundwater elevations for this gauging event, as well as historical data dating back to 2008, are summarized on Table 3. The December 2013 groundwater elevations in the shallow zone averaged approximately 0.02 foot lower in elevation than those measured during the June 2013 sampling event. The measured groundwater elevations in the wells screened in the deep zone were between 0.16 feet higher (MW-1D) and 1.22 feet higher (MW-2D) in comparison to their elevations measured in June 2013. Shallow zone potentiometric surface maps for December 2013 and June 2013 are presented as Figures 3a and 3b, respectively. The shallow zone potentiometric surface maps continue to show groundwater flow generally to be northeast, which is consistent with historical data. Deep zone potentiometric surface maps for December 2013 and June 2013 are presented as Figures 4a and 4b, respectively. Groundwater flow in the deep zone is generally to the east, and is consistent with historical data.

Water samples were collected from select monitoring wells and surface water sampling locations on December 3-5, 2013. Groundwater samples were collected from shallow zone monitoring wells MW-4, MW-5, MW-6, MW-7, MW-8, MW-9/9R, MW-10, MW-11, MW-12, MW-15, MW-18, MW-19, MW-20, and MW-21. A groundwater sample was also collected from deep zone monitoring well MW-20D.

Low flow/low stress purging methodology employing a peristaltic pump was used to purge and sample the monitoring wells in general accordance with USEPA Region 4 Science and Ecosystem Support Division (SESD) Groundwater Sampling Procedure SESDPROC-301-R2 (October 2011).

The samples were collected using a peristaltic pump by means of the “soda-straw” method as described in SESD 4.3.1.2.7. The groundwater samples, excluding MW-10, were analyzed for site-specific VOCs using USEPA Method 8260B. MW-10 was analyzed for TPH GRO (Gasoline Range Organics) and TPH DRO (Diesel Range Organics) using USEPA Method 8015, Oil and Grease using USEPA method E1644A, and SVOCs using USEPA Method 8270C to further investigate the presence of the oily substance. Appendix A contains the laboratory analytical reports for groundwater and surface water samples. Appendix B contains copies of groundwater sampling logs.

The analytical results for the December 2013 groundwater sampling event are summarized on Table 4, along with historical analytical results. Constituent concentrations were similar to prior results, with generally stable or decreasing trends. Monitoring wells MW-8 and MW-19, which were used as extraction points in the 24-hour HVE event performed at the site between April 30 - May 1, 2013, showed slightly increasing TCE concentrations in comparison to the prior sampling event. MW-8 also showed generally stable or increasing concentrations of other detected VOCs, while MW-19 showed decreases in comparison to the June 2013 sampling event. Figure 5 shows the results of the December 2013 event and the interpreted extent of VOCs in groundwater. No VOCs were reported above their method detection limits in monitoring well MW-20D during the December 2013 sampling event, thus indicating vertical delineation. Trend graphs (Appendix C) were prepared for wells with consistent groundwater constituent concentrations exceeding the calculated RRS. VOCs were not detected in off-site monitoring wells. The laboratory analytical report is provided in Appendix A.

Surface water samples SW-5 and SW-6 were collected from the unnamed tributary of Hughes Prong (which serves as the nearest discharge boundary for shallow groundwater) as well as the drainage ditch along the eastern property boundary. This unnamed tributary is approximately 530 feet down-gradient of MW-8. Surface water samples SW-2 and SW-4 were collected from the drainage ditch downgradient of the culvert that flows beneath Meadowlake Parkway, but prior to the point where the ditch discharges to the unnamed tributary of Hughes Prong. The surface water sample locations are shown on Figure 6. It is thought that these locations are more representative of groundwater to surface water discharge than surface water samples collected from the low-lying area immediately east of the site, which does not have a clearly defined channel and is more likely a groundwater recharge area. The surface water samples were analyzed for site-specific VOCs using USEPA Method 8260B. The groundwater and surface water samples were packaged in ice and transported by AMEC personnel under chain-of-custody protocol to the laboratory, Analytical Environmental Services (AES) in Atlanta, Georgia. The laboratory analytical report is provided in Appendix A.

As shown on Table 5, all surface water sample results from the December 2013 sampling event were below the detection limits for all analyzed constituents. This is consistent with past results. The analytical results for surface water samples are summarized on Figure 6.

3.3 Evaluation of Oily Substance in MW-10

The sampling of MW-10, which is not part of the routine sampling under the VRP, was added during the June 2013 sampling event and continued during the December 2013 sampling event to

further evaluate the presence of an unknown pale yellow oily substance detected during fluid level gauging in December 2012. MW-10 was gauged and bailed on April 29, 2013 during the HVE event, but no evidence of the oily substance was observed or measured at that time. During the June 2013 sampling event, MW-10 was again gauged and a light non-aqueous phase liquid (LNAPL) thickness of approximately 0.03 feet was present. Prior to sampling groundwater from MW-10, several attempts were made to collect the LNAPL by “sipping” with the peristaltic pump and by skimming with a bailer, but only 4-5 milliliter (ml) of the substance was recovered. No recharge of the substance was measured or observed after the well was allowed to recover overnight. Groundwater from MW-10 was submitted for analysis for the full suite of VOCs under USEPA Method 8260B. The analytical results for groundwater collected from MW-10 during the June 2013 sampling event were below the method detection limit for all VOCs. Further investigation of MW-10 during the December 2013 sampling event did not indicate the presence of the oily substance. MW-10 showed analytical results below the laboratory reporting limits for total oil and grease, SVOCs, and gasoline range organics (GRO). MW-10 had a detection of 0.31 mg/l for diesel range organics (DRO). MW-10 will continue to be gauged, and for confirmation will be sampled for DRO (only) during the next semi-annual sampling event.

4.0 GROUNDWATER MODELING UPDATE

The previous groundwater fate and transport BIOCHLOR model was updated to evaluate current contaminant concentrations versus the previous model predictions. All other input parameters, other than the year, were held constant. The December 2013 data is assumed to be 17 years since the release. The updated model results are presented in Appendix E. In the three primary monitoring wells used for model calibration (MW-8, MW-15, and MW-20), VOC concentrations continue to correlate reasonably well to model predictions. The actual concentrations in down-gradient wells remain below model predictions, indicating that the model is conservative.

5.0 CONCLUSIONS

The December 2013 groundwater flow direction is consistent with previous data. No VOC impacts were detected in the deeper zone, no surface water impacts were detected, and the shallow groundwater VOC plume appears to be generally degrading and shrinking. The land surrounding the site is industrial or undeveloped and is supplied with public water. Therefore, no complete pathways for exposure to contaminants are present. Vapor intrusion modeling does not indicate that the VOCs in groundwater pose a risk to on-site structures. The data does not suggest that revisions to the conceptual site model are necessary.

Further evaluation of the oily substance present in MW-10 in December 2012 included analyzing the groundwater from MW-10 for VOCs by USEPA method 8260B during the June 2013 sampling event. MW-10 was further evaluated during the December 2013 sampling event by analyzing for GRO and DRO using USEPA Method 8015, Oil and Grease using USEPA method E1644A, and SVOCs using USEPA Method 8270C. No VOCs, SVOCs, oil and grease, or GRO were reported in MW-10. Groundwater in MW-10 showed a slight detection of DRO (0.31 mg/l). Results of the groundwater investigation at MW-10 indicate the presence of the oily substance is not related to the chlorinated solvent release being addressed by STI. The presence of the oily substance will continue to be evaluated.

The groundwater analytical data continues to support MNA as an appropriate corrective action for the site. The BIOCHLOR predictions do not indicate that contaminants will affect the nearest point of exposure (POE), the unnamed tributary of Hughes Prong. Furthermore, it appears unlikely that groundwater contaminant concentration above applicable standards will be detected beyond the down-gradient property boundary. The previous BIOCHLOR predictions indicate an estimated cleanup timeframe of approximately 74 years before MNA will reduce on-site concentrations to drinking water levels. Therefore, a Uniform Environmental Covenant (UEC) will be executed to prohibit the use of groundwater. Further data is required to evaluate the migration of impacted groundwater and to determine if any other adjacent properties need to be included in the covenant. It is anticipated that the UEC will be in place by the end of the 5-year VRP evaluation period. Supplemental HVE events, or other remediation enhancements, may help to accelerate the cleanup timeframe, and will continue to be evaluated. The next groundwater sampling event will be conducted in the late May/early June 2014 timeframe with the next VRP status report scheduled for submittal by August 24, 2014.

6.0 PROFESSIONAL HOURS SERVICES THIS PERIOD

AMEC Environment & Infrastructure, Inc. has provided 114.4 professional service hours for VRP implementation from July 20, 2013 through January 24, 2014. The registered professional engineer responsible for implementation of the VRP at this site is Mr. Gregory Wrenn. Mr. Wrenn has personally charged 10.5 labor hours to the project to direct and review the various aspects of implementation of the VRP during this reporting period. Table 6 shows a monthly summary of hours invoiced and a description of services for this reporting period.

TABLES

STI Properties, Inc.
Swainsboro, GA

Table 1
Summary of Delineation Criteria and Cleanup Standards

February 2014

Soil Constituents	Delineation Criteria	Type 3 Surface Soil Cleanup Value	Type 3 Subsurface Soil Cleanup Value	RRS Data Source
	mg/kg	mg/kg	mg/kg	
Arsenic	20	38	41	Type 3, Jan 2000 CAP
Barium	1000	1000	1000	Type 3, Jan 2000 CAP
Cadmium	2	39	39	Type 3, Jan 2000 CAP
Chromium	100	110	1200	Type 3, Jan 2000 CAP
Copper	100	1500	1500	Type 3, Jan 2000 CAP
Lead	75	400	400	{Revised per HSRA Rule Change}
Mercury	0.5	17	17	Type 3, Jan 2000 CAP
Nickel	50	420	420	Type 3, Jan 2000 CAP
Silver	2	10	10	Type 3, Jan 2000 CAP
Vanadium	100	100	100	Type 3, Jan 2000 CAP
Zinc	100	2800	2800	Type 3, Jan 2000 CAP
1,1,1-Trichloroethane	20	20	20	Type 3, VRP Appl Addendum, Appendix C
1,1,2,2-Tetrachloroethane	0.13	0.5	0.5	Type 3, VRP Appl Addendum, Appendix C
1,1,2-Trichloroethane	0.5	0.5	0.5	Type 3, VRP Appl Addendum, Appendix C
1,1-Dichloroethene	0.7	0.7	0.7	Type 3, VRP Appl Addendum, Appendix C
1,2-Dichloroethane	0.5	0.5	0.5	Type 3, VRP Appl Addendum, Appendix C
cis-1,2-Dichloroethene	7	7	7	Type 3, VRP Appl Addendum, Appendix C
Trichloroethene	0.5	0.5	0.5	Type 3, VRP Appl Addendum, Appendix C
Vinyl Chloride	0.2	0.2	0.2	Type 3, VRP Appl Addendum, Appendix C
Groundwater Constituents	**mg/L**	**Groundwater Cleanup Value mg/L**		
Cadmium	0.005	0.005		Type 3, Jan 2000 CAP
Chromium	0.1	0.1		Type 3, Jan 2000 CAP
Copper	1.3	1.3		Type 3, Jan 2000 CAP
Lead	0.015	0.015		Type 3, Jan 2000 CAP
Zinc	2	2		Type 3, Jan 2000 CAP
Mercury	0.002	0.002		Type 3, Jan 2000 CAP
1,1,1-Trichloroethane	0.2	13		Type 4, VRP Appl Addendum, Appendix C
1,1,2,2-Tetrachloroethane	0.001	0.005		Type 3 {Reporting Limit}, VRP Addendum, Appendix C
1,1,2-Trichloroethane	0.005	0.005		Type 3, VRP Appl Addendum, Appendix C
1,1-Dichloroethene	0.007	0.52		Type 4, VRP Appl Addendum, Appendix C
1,2-Dichloroethane	0.005	0.005		Type 3, VRP Appl Addendum, Appendix C
cis-1,2-Dichloroethene	0.07	0.2		Type 4, VRP Appl Addendum, Appendix C
Trichloroethene	0.005	0.0052		Type 4, VRP Appl Addendum, Appendix C
Vinyl Chloride	0.002	0.0033		Type 4, VRP Appl Addendum, Appendix C

mg/kg milligrams per kilogram
mg/L milligrams per liter

Revised by: LMS 7-26-12
Checked by: MKB 7-27-12

TABLE 2
ESTIMATED COST FOR VRP IMPLEMENTATION
FORMER AUTOMATIC SPRINKLER, SWAINSBORO, GEORGIA

TASK #	TASK DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
1.0	**Annual Sampling, Reporting, Inspections, & Maintenance**					
	1.1 Semi-Annual Groundwater Sampling					
	Labor	2	event	$3,000	$6,000	Assumes 3 days/event, 2-man crew
	Laboratory Analytical	22	ea	$280	$6,160	VOCs, hydrogen, methane, ethane
	Rental Equipment	2	event	$800	$1,600	ethene
	Mobilization/Demobilization/Travel Expenses/Supplies	2	event	$1,200	$2,400	
	1.2 Semi-Annual Surface Water Sampling					
	Labor	2	event	$500	$1,000	Assumes 1 day/event, 2-man crew
	Laboratory Analytical	4	ea	$80	$320	VOCs
	Expenses/Supplies	2	ea	$100	$200	
	1.3 Reporting	2	ea	$8,500	$17,000	
	1.4 Other Costs (covenant, inspections, EPD comments/invoices)	1	ea	$2,500	$2,500	
	SUBTOTAL - Annual Costs				**$37,180**	
2.0	**Supplemental Hi-Vacuum Remediation Events**	1	ea	$15,000	**$15,000**	
3.0	**Post-Implementation Compliance Status Report**	1	ea	$20,000	**$20,000**	

YEAR	COST DESCRIPTION	TASK 1	TASK 2	TASK 3	TOTAL COST BY YEAR
2014	Annual Costs + HVR Event	$37,180	$15,000		$52,180
2015	Annual Costs + HVR Event	$37,180	$15,000		$52,180
2016	Annual Costs + HVR Event	$37,180	$15,000		$52,180
2017	Annual Costs + CSR			$20,000	$20,000
	TOTAL PROJECTED COST				**$176,540**

Prepared By: JAM 11/14/13
Checked By: GJW 11/14/13

The cost opinion is provided for budgetary purposes. Actual scope of work and costs may vary as additional information and formal cost estimates are obtained.

Table 3
Summary of Groundwater Elevations June 2008 Through December 2013

Well ID	TOC Elevation (FT MSL)	Depth to Water 6/4/2008 (FT BTOC)	Groundwater Elevation 6/4/2008 (FT MSL)	Depth to Water 4/14/2009 (FT BTOC)	Groundwater Elevation 4/14/2009 (FT MSL)	Depth to Water 9/17/2009 (FT BTOC)	Groundwater Elevation 9/17/2009 (FT MSL)	Depth to Water 11/30/2009 (FT BTOC)	Groundwater Elevation 11/30/2009 (FT MSL)	Depth to Water 5/17/2010 (FT BTOC)	Groundwater Elevation 5/17/2010 (FT MSL)	Depth to Water 11/18/2010 (FT BTOC)	Groundwater Elevation 11/18/2010 (FT MSL)	Depth to Water 5/30/2012 (FT BTOC)	Groundwater Elevation 5/30/2012 (FT MSL)	Depth to Water 12/13/2012 (FT BTOC)	Groundwater Elevation 12/13/2012 (FT MSL)	Depth to Water 6/5/2013 (FT BTOC)	Groundwater Elevation 6/5/2013 (FT MSL)	Depth to Water 12/3/2013 (FT BTOC)	Groundwater Elevation 12/3/2013 (FT MSL)
Shallow Aquifer																					
MW-1	292.71	NM	NM	6.49	286.22	10.68	282.03	9.62	283.09	9.21	283.50	11.56	281.15	NM	NM	12.63	280.08	9.74	282.97	10.58	282.13
MW-2	285.70	6.11	279.59	4.64	281.06	5.53	280.17	4.90	280.80	4.93	280.77	6.29	279.41	5.14	280.56	6.14	279.56	5.83	279.87	4.91	280.79
MW-3	281.17	3.30	277.87	1.86	279.31	2.70	278.47	2.35	278.82	2.31	278.86	3.58	277.59	2.31	278.86	3.03	278.14	2.98	278.19	2.70	278.47
MW-4	281.84	2.40	279.44	0.92	280.92	1.87	279.97	1.50	280.34	1.61	280.23	2.81	279.03	1.71	280.13	3.11	278.73	2.25	279.59	2.02	279.82
MW-5	286.71	6.57	280.14	4.00[1]	282.71	6.22	280.49	6.29	280.42	6.18	280.53	7.86	278.85	*6.65	280.06	8.42	278.29	6.49	280.22	7.51	279.20
MW-6	281.00	4.51	276.49	2.52	278.48	4.34	276.66	3.85	277.15	3.68	277.32	5.04	275.96	4.40	276.60	5.32	275.68	4.16	276.84	4.72	276.28
MW-7	281.33	4.19	277.14	2.56	278.77	3.48	277.85	2.99	278.34	2.83	278.50	4.21	277.12	2.71	278.62	3.33	278.00	3.50	277.83	3.24	278.09
MW-8	281.28	3.69	277.59	1.82	279.46	3.24	278.04	2.73	278.55	2.64	278.64	3.96	277.32	2.13	279.15	3.20	278.08	3.36	277.92	3.05	278.23
MW-9R	278.31	3.70	274.61	1.74	276.57	3.41	274.90	3.00	275.31	2.25	276.06	4.40	273.91	2.51	275.80	3.16	275.15	3.00	275.31	3.48	274.83
MW-10	289.37	6.89	282.48	2.54	286.83	6.17	283.20	5.42	283.95	5.30	284.07	7.76	281.61	4.28	285.09	7.15	282.22	6.47	282.90	6.65	282.72
MW-11	281.77	4.50	277.27	3.11	278.66	4.06	277.71	3.58	278.19	3.39	278.38	4.75	277.02	3.27	278.50	3.93	277.84	4.10	277.67	3.79	277.98
MW-12	288.04	4.62	283.42	0.97	287.07	4.34	283.70	3.50	284.54	3.57	284.47	5.94	282.10	2.85	285.19	5.04	283.00	4.71	283.33	4.51	283.53
MW-15	280.22	6.87	273.35	6.04	274.18	6.63	273.59	6.36	273.86	6.30	273.92	7.12	273.10	6.47	273.75	7.05	273.17	6.59	273.63	6.72	273.50
MW-18	281.27	NI	NI	NI	NI	3.55	277.72	2.64	278.63	2.87	278.40	4.16	277.11	2.64	278.63	3.43	277.84	3.17	278.10	3.11	278.16
MW-19	281.80	NI	NI	NI	NI	4.13	277.67	3.23	278.57	3.00	278.80	2.81	278.99	*3.27	278.53	3.64	278.16	3.83	277.97	3.45	278.35
MW-20	282.99	NI	NI	NI	NI	5.15	277.84	4.77	278.22	4.53	278.46	5.78	277.21	4.45	278.54	5.24	277.75	5.18	277.81	5.08	277.91
MW-21	284.12	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	*4.96	279.16	5.44	278.68	5.46	278.66	4.96	279.16
Deep Aquifer																					
MW-1D	282.95	8.34	274.61	7.14	275.81	7.55	275.40	7.35	275.60	7.53	275.42	7.71	275.24	7.91	275.04	8.04	274.91	8.17	274.78	8.01	274.94
MW-2D	280.01	8.70	271.31	7.50	272.51	8.02	271.99	7.96	272.05	8.11	271.90	8.26	271.75	8.47	271.54	8.74	271.27	8.83	271.18	7.61	272.40
MW-16D	279.91	6.30	273.61	4.70	275.21	5.66	274.25	5.93	273.98	5.85	274.06	5.45	274.46	6.32	273.59	6.54	273.37	5.85	274.06	5.52	274.39
MW-20D	281.21	NI	NI	NI	NI	6.59	274.62	6.08	275.13	7.35	273.86	6.79	274.42	7.57	273.64	7.19	274.02	7.31	273.90	6.65	274.56

Notes:
BTOC: Below top of casing
FT MSL: Feet mean sea level
NM: not measured - MW-1 appears to have been covered by the installation of a driveway
NI = Not Installed
[1] Water level measurement collected on 4/15/2009
* Water level measurements collected on 5/31/2012

Prepared by: MHA 12/10/2013
Checked by: TRK 1/31/2014

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-3														
Date Sampled	TYPE 3/4 RRS mg/L	Jul-98	Dec-00	Dec-03	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	Dec-09 DUP-2	May-10	Nov-10
VOCs (mg/L)																
Chloroethane	---	0.015	<0.010	0.0096	0.0034	0.0038	0.0028	0.0013	0.0011	0.0018	<0.001	0.0014	0.0011	<0.001	0.002	0.0009 J
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethylene	0.0052	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	0.52	0.006	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane	---	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis -1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	0.0014	<0.001	0.00091 J	<0.001	0.00094 J	<0.001	<0.001	<0.001	<0.001	<0.001
trans -1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl Chloride	0.0033	**0.140**	**0.052**	**0.022**	**0.024**	**0.027**	**0.027**	**0.014**	**0.020**	**0.021**	**0.0173**	**0.0168**	**0.0094**	**0.0093**	**0.0172**	**0.0104**
SVOCs (mg/L)																
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																
pH (std. Units)	---	NA	5.94	5.7	5.64	5.51	5.28	5.37	5.63	5.57	5.54	5.85	6.04	6.04	5.7	6.21
Specific Conductance (mS/cm)	---	NA	0.14	0.19	0.197	0.222	0.212	0.208	0.199	0.263	0.222	0.239	0.421	0.421	0.278	0.255
Temperature (deg. C)	---	NA	16.94	19.3	19.94	21.48	22.53	24.65	21.99	24.24	26.59	19.17	20.45	20.45	22.38	22.98
Dissolved Oxygen (mg/L)	---	NA	0.00	0.48	0.34	0.78	0.62	0.40	0.43	0.42	0.50	0.34	0.27	0.27	0.23	0.48
ORP (mV)	---	NA	-13.00	-17.6	-29.7	12.9	53.5	87.9	30.3	0.4	-35.3	-10.8	-60.1	-60.1	-7.2	-72.3
Turbidity (NTU)	---	NA	6.40	45	24.1	12.8	13.7	5	1.6	8.5	4.1	4	32.2	32.2	67.2	30.8
Iron II (mg/L)	---	NA	4.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	13.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	4.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	74.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.001	0.0012	0.00081	0.0014	0.0013	0.0012	0.00084	0.000890	0.001300	0.000450	0.000210	0.000660	0.0004 J	0.00039
Ethane	---	NA	<0.000005	0.000009	0.000014	0.000065	0.000130	0.000052	0.000033	0.000050	0.000180	0.000021	<0.00001	0.000140	0.000009 J	0.000018
Methane	---	NA	9.10	7.6	7.7	9.4	7.2	9.2	8.3	6.7	8.2	7.4	5.8	13.0	4.2 J	7.6
Hydrogen (nmol/L)	---	NA	<0.030	2.7	3.9	1.6	1.4	3.0	27.0	1.7	2.2	1.1	1.5	NA	2.0	1.2

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-4																	
Date Sampled	TYPE 3/4 RRS mg/L	Jul-98	Dec-00	Dec-03	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13
VOCs (mg/L)																			
Chloroethane	---	0.029	0.022	0.040	0.0024	0.021	0.0045	0.003	0.0029	0.0034	0.0029	<0.001	0.0014	0.0016	0.0013	<0.01	<0.01	<0.01	<0.01
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.005	<0.001	<0.001	<0.001	0.0016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	0.018	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	0.0021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	**0.300**	**0.093**	**0.058**	**0.018**	**0.045**	**0.037**	**0.031**	**0.040**	**0.042**	**0.034**	**0.0047**	**0.022**	**0.0288**	**0.0241**	**0.028**	**0.024**	0.0031	**0.036**
SVOCs (mg/L)																			
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																			
pH (std. Units)	---	NA	6.37	6.24	6.12	6.16	6.13	6.18	6.18	6.12	5.54	6.73	6.65	5.89	5.97	6.18	6.16	6.3	6.19
Specific Conductance (mS/cm)	---	NA	0.21	0.33	0.183	0.376	0.452	0.437	0.391	0.474	0.422	0.237	0.402	0.401	0.349	0.447	0.416	0.156	0.463
Temperature (deg. C)	---	NA	17.91	18.22	21	20.3	24.86	25.03	20.35	23.66	25.95	18.54	21.78	24.8	23.35	25.46	18.26	23.47	21.94
Dissolved Oxygen (mg/L)	---	NA	0.00	0.24	0.12	0.76	0.57	0.32	0.39	1.19	0.53	1.23	0.28	0.27	0.80	0.30	0.96	1.52	3.78
ORP (mV)	---	NA	-32.00	-43.1	-110	-59.9	-49.5	-37.1	-214.8	-71.8	-36.2	-39.6	-82.9	-33.5	-325.1	-56.6	-18.4	-3.8	-63
Turbidity (NTU)	---	NA	5.40	12.5	8	10.0	0.0	4.5	6.5	2.3	2.2	6.0	16.2	-3.2	14.2	3.0	9.1	8.3	0.0
Iron II (mg/L)	---	NA	7.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																			
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	9.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	4.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	4.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	120.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.0026	0.0027	0.001	0.0019	0.0016	0.0019	0.0016	0.0014	0.0012	0.00012	0.00054	0.00074 J	0.00076	NA	<0.007	<0.007	<0.007
Ethane	---	NA	<0.000005	<0.000005	<0.000005	<0.000005	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	0.000004J	<0.00001	0.000004 J	0.000008 J	NA	<0.009	<0.009	<0.009
Methane	---	NA	8.10	8.3	5.6	5.0	7.4	9.5	7.9	9.7	11.0	0.68	5.9	7.9 J	4.5	NA	6.0	1.7	6.2
Hydrogen (nmol/L)	---	NA	0.16	2.6	2.7	1.2	7.7	3.8	2.0	2.7	4.8	3.0	25.0	2.6	2.7	NA	NA	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-5																	
Date Sampled	TYPE 3/4 RRS mg/L	Oct-98	Dec-00	Dec-03	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13
VOCs (mg/L)																			
Chloroethane	---	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<.010	<.010	<.010	<.010
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.005	<0.001	0.001	<0.001	0.0022	0.0011	0.0020	0.0011	0.0013	0.0012	0.0011	<0.001	0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	0.008	0.015	0.015	0.013	0.011	0.011	0.0081	0.0098	0.0087	0.0074	0.0068	0.0071	0.0051	0.0045	0.0064	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	0.007	0.015	0.011	0.0096	0.0077	0.0075	0.0069	0.0065	0.0054	0.0053	0.0045	0.0046	0.0032	0.0028	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	0.0016	<0.001	0.0012	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	0.00035 J	0.00033J	0.00026 J	<0.001	0.0003J	0.00088 J	<0.001	<0.002	<0.002	<0.002	<0.002
SVOCs (mg/L)																			
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																			
pH (std. Units)	---	NA	4.84	4.95	4.99	4.67	4.75	5.08	4.90	4.80	4.95	5.00	4.93	4.72	4.88	4.57	4.95	4.56	5.01
Specific Conductance (mS/cm)	---	NA	0.03	0.03	0.033	0.036	0.033	0.035	0.037	0.08	0.036	0.03	0.071	0.044	0.036	0.042	0.15	0.079	0.037
Temperature (deg. C)	---	NA	18.50	18.83	21.65	22.97	20.25	21.96	20.87	20.22	21.54	18.4	21.61	19.17	22.69	21.23	19.86	19.98	21.28
Dissolved Oxygen (mg/L)	---	NA	0.00	0.51	0.32	0.19	0.38	0.28	0.28	0.29	0.52	0.23	0.51	0.17	0.33	0.96	2.83	0.59	3.99
ORP (mV)	---	NA	210.00	234.10	133.2	130.9	200.8	135.1	171.5	175.1	-77.9	180	195.6	207.6	213.5	205.2	180.4	81.7	233.4
Turbidity (NTU)	---	NA	0.00	39.50	1.4	0.0	0	3.5	4.1	5.2	1.8	0.0	0.0	4.0	3.0	5.7	7.9	1.8	8.6
Iron II (mg/L)	---	NA	0.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																			
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	3.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	1.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	3.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.000016	0.000009	0.000011	0.000011	0.000009	0.000008 J	0.000006 J	0.000007J	0.000012	0.000006J	0.000065	0.000011	J0.000007 J	NA	<0.007	<0.007	<0.007
Ethane	---	NA	<0.000005	<0.000005	0.0000024	########	0.000004	0.000002 J	0.000002 J	0.000005J	0.000006 J	0.000004J	0.000008J	0.000015	J0.000002 J	NA	<0.009	<0.009	<0.009
Methane	---	NA	0.52	0.63	0.56	0.83	0.57	0.51	0.4	0.28	0.24	0.2	0.27	0.21 J	0.048	NA	0.059	0.053	0.078
Hydrogen (nmol/L)	---	NA	<0.030	1.2	1.7	1.6	2.3	7.2	11	4	15	7.7	11.0	8.8	3.9	NA	NA	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-6																			
Date Sampled	TYPE 3/4 RRS mg/L	Oct-98	Dec-00	Dec-03	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Sep-09	Dec-09	May-10	Nov-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13
VOCs (mg/L)																					
Chloroethane	---	0.002	<0.010	0.014	0.0032	<0.001	0.0072	0.002	0.0016	0.0017	0.0013	<0.001	0.0017	0.001	<0.001	0.0012	0.0012	<0.01	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	0.0016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.005	0.0036	<0.001	**0.0079**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	ND	<0.005	0.0022	<0.001	0.0048	0.0017	<0.001	<0.001	0.0010	<0.001	0.00060J	<0.001	<0.001	0.0014	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	ND	<0.005	0.0011	0.0018	0.0021	0.0036	0.0014	0.0020	0.0028	0.0023	0.0016	0.0015	0.0013	0.002	0.0015	0.0015	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	ND	<0.005	0.0018	<0.001	0.0045	0.0029	0.00090 J	0.0012	0.0014	0.0014	0.0010	0.0015	0.0012	0.0014	0.0016	0.0019	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	**0.010**	<0.010	**0.010**	**0.0096**	**0.0092**	**0.0094**	**0.0055**	**0.0051**	**0.0065**	**0.0052**	**0.0035**	**0.0054**	**0.0035**	0.0028	**0.0043**	**0.0044**	**0.0036**	0.003	<0.002	<0.002
SVOCs (mg/L)																					
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0211	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																					
pH (std. Units)	---	NA	6.14	5.84	5.81	5.81	5.84	5.54	5.82	5.85	4.91	5.98	5.84	5.84	5.56	5.56	5.56	5.78	5.85	5.70	5.90
Specific Conductance (mS/cm)	---	NA	0.12	0.18	0.167	0.182	0.15	0.152	0.160	0.191	0.152	0.231	0.192	0.211	0.156	0.169	0.169	0.169	0.188	0.195	0.157
Temperature (deg. C)	---	NA	17.27	20.83	24.92	23.92	24.64	27.16	22.16	23.75	27.25	20.24	31.27	21.83	24.00	25.56	25.56	28.05	21.69	25.53	23.19
Dissolved Oxygen (mg/L)	---	NA	0.00	0.26	0.07	0.35	0.64	0.4	0.24	0.42	0.41	1.73	0.28	0.39	0.82	0.52	0.52	0.21	0.93	0.48	0.21
ORP (mV)	---	NA	-92.00	-11.6	-78.8	-22.0	-6.0	30.3	-216.5	-39.4	292.7	4.9	-12.7	-7.7	-1.6	-387.7	-387.7	-6.6	-8.7	-83.6	-33.2
Turbidity (NTU)	---	NA	0.00	7.3	2.4	5.6	4.9	3.5	4.5	2.2	0.7	3.5	6.1	8.0	11.5	11.5	11.5	4.6	7.3	2.1	9.2
Iron II (mg/L)	---	NA	4.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																					
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	3.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	3.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	65.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.00014	0.00043	0.00016	0.00029	0.00013	0.0002	0.000066	0.000068	0.00011	0.000038	0.000092	0.000042	0.000053 J	0.000084	0.000084	NA	<0.007	<0.007	<0.007
Ethane	---	NA	<0.000005	<0.000005	<0.000005	0.000011	<0.00001	<0.000010	<0.00001	0.000006J	0.000009J	0.000006J	0.000003J	0.000002J	0.000006 J	0.000003 J	0.000003	NA	<0.009	<0.009	<0.009
Methane	---	NA	6.10	5.9	3.8	5.4	3.7	4.6	5.1	2.9	3.2	3.8	1.8	1.2	2.8 J	3.4	3.4	NA	3.4	2.2	3.5
Hydrogen (nmol/L)	---	NA	1.20	2.2	2.4	4.1	3.3	3.8	1.7	3.2	2.8	0.71	330	18	5.2	2.6	2.6	NA	NA	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-7				MW-8														
Date Sampled	TYPE 3/4 RRS mg/L	May-12	Dec-12	Jun-13	Dec-13	Oct-98	Jul-00	Dec-00	Apr-01	Dec-03	Dec-03 Dup	May-04	May-04 Dup	Nov-04	May-05	May-05 Dup	Jun-06	Jun-06 Dup	Dec-06	Dec-06 Dup
VOCs (mg/L)																				
Chloroethane	---	<0.01	<0.01	<0.01	<0.01	0.041	<1	<0.1	0.046	0.38	0.37	<0.05	<0.05	0.04	<0.1	0.03	<0.050	0.025 J	<0.020	0.02
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.005	<0.005	0.001	<0.5	<0.05	<0.002	<0.050	<0.05	<0.05	<0.05	<0.025	<0.1	<0.001	<0.050	<0.025	<0.02	<0.02
1,1,1-Trichloroethane	13	<0.005	<0.005	<0.005	<0.005	**53**	6.2	0.67	2.5	1.3	1.3	0.75	0.95	2.0	1.9	1.9	2.2	1.7	0.55	0.65
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.005	<0.005	**0.052**	<0.5	<0.05	<0.002	<0.050	<0.05	<0.05	<0.05	<0.025	<0.1	0.0019	<0.050	<0.025	<0.020	<0.020
Trichloroethylene	0.0052	<0.005	<0.005	<0.005	<0.005	**140**	**14**	**1**	**4**	**2.4**	2.4	**1.6**	**1.8**	**3.3**	**4.6**	**4.7**	**5.3**	**4.4**	**0.71**	0.8
1,1-Dichloroethene	0.52	<0.005	<0.005	<0.005	<0.005	**45**	**8.7**	**0.9**	**2.3**	**2.4**	**2.2**	**1.2**	**1.3**	**3.6**	**3.3**	**3.5**	**4.9**	**3.2**	**2.1**	**2.3**
1,1-Dichloroethane	---	<0.005	<0.005	<0.005	<0.005	0.94	<0.5	0.13	0.17	0.28	0.27	0.17	0.2	0.19	0.23	0.24	0.28	0.23	0.18	0.19
1,2-Dichloroethane	0.005	<0.005	<0.005	<0.005	<0.005	**0.03**	<0.5	<0.05	<0.002	<0.050	<0.05	<0.05	<0.050	<0.025	<0.1	<0.001	<0.050	<0.025	<0.020	<0.020
cis -1,2-Dichloroethene	0.2	<0.005	<0.005	<0.005	<0.005	**4.5**	**4.5**	**1.1**	**1.4**	**2.3**	**2.1**	**2.1**	**2.3**	**3.6**	**2.7**	**3**	**4.2**	**3.4**	**3.4**	**3.7**
trans -1,2-Dichloroethene	---	<0.005	<0.005	<0.005	<0.005	ND	<0.5	<0.05	NA	<0.050	<0.05	<0.05	<0.05	<0.025	<0.1	0.01	<0.050	<0.025	<0.020	<0.020
Vinyl Chloride	0.0033	<0.002	<0.002	<0.002	<0.002	**0.93**	**1.6**	**0.99**	**0.37**	**1.8**	**1.8**	**0.73**	**0.85**	**0.73**	**1.1**	**1.2**	**1.4**	**0.89**	**0.81**	**0.78**
SVOCs (mg/L)																				
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA		NA	NA		NA		NA	
Field Parameters																				
pH (std. Units)	---	5.06	5.18	5.05	5.28	NA	NA	6.04	5.23	6.09	NA	5.81	NA	6.14	5.88	5.88	5.75	5.75	5.86	5.86
Specific Conductance (mS/cm)	---	0.057	0.082	0.170	0.196	NA	NA	0.17	0.14	0.48	NA	0.33	NA	0.524	0.384	0.384	0.419	0.419	0.403	0.403
Temperature (deg. C)	---	20.63	16.08	18.95	17.20	NA	NA	17.02	NA	18.53	NA	20.95	NA	20.71	19.16	19.16	21.15	21.15	19.27	19.27
Dissolved Oxygen (mg/L)	---	0.24	0.68	0.58	0.23	NA	NA	0.00	NA	0.24	NA	0.33	NA	0.65	0.93	0.93	0.46	0.46	0.33	0.33
ORP (mV)	---	131.9	224.2	-37.0	52.4	NA	NA	-49.00	NA	-47.4	NA	-70	NA	-82.2	-19.1	-19.1	-12.1	-12.1	-45.2	-45.2
Turbidity (NTU)	---	60.8	161.4	7.3	455.9	NA	NA	10.50	NA	6.7	NA	0.5	NA	5.6	4.9	4.9	3.9	3.9	1.7	1.7
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																				
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	13.00	NA	NA	NA	NA	NA	NA	9.6	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	21.00	NA	NA	NA	NA	NA	NA	37	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	<0.10	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	1.90	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	59.00	NA	NA	NA	NA	NA	NA	76	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	0.16	NA	NA	NA	NA	NA	NA	<0.1	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200	NA	NA	NA	NA	NA
Ethene	---	NA	<0.007	<0.007	<0.007	NA	NA	0.23	NA	0.32	NS	0.11	0.12	0.053	0.054	NA	0.13	0.13	0.051	0.064
Ethane	---	NA	<0.009	<0.009	<0.009	NA	NA	0.00	NA	0.00022	NS	0.00072	0.0013	0.0014	0.0012	NA	0.0038	0.0037	0.0018	0.003
Methane	---	NA	0.17	0.94	0.95	NA	NA	7.70	NA	7.3	NS	7.7	11	4.1	8	NA	12	12	4.3	7.1
Hydrogen (nmol/L)	---	NA	NA	NA	NA	NA	NA	<0.03	NA	2	NS	1.6	NA	2.0	1.2	NA	0.87	NA	18	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-8 continued																			
Date Sampled	TYPE 3/4 RRS mg/L	May-07	May-07 DUP	Jun-08	Jun-08 Dup	Oct-08	Oct-08 Dup	Apr-09	Apr-09 DUP	Sep-09	Sep-09 DUP	Dec-09	May-10	DUP-1	Nov-10	Nov-10 DUP-1	May-12	Dec-12	Dec-12 DUP-1	Jun-13	Jun-13 DUP-1
VOCs (mg/L)																					
Chloroethane	---	<0.020	<0.020	<0.1	<0.05	<0.025	<0.025	<0.005	<0.005	0.0595	0.0556	<0.01	0.0134	<0.025	0.0905	0.0632	<0.01	0.025	0.026	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	<0.02	<0.02	<0.1	<0.05	<0.025	<0.025	<0.005	<0.005	<0.04	<0.025	<0.01	<0.01	<0.025	<0.02	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	0.74	0.87	5.55	5.27	0.217	0.194	0.32	0.32	1.1	0.802	0.296	1.1	0.96	1.65	1.36	0.740	2.5	2.6	0.470	0.520
1,1,2-Trichloroethane	0.005	<0.02	<0.02	<0.1	<0.05	<0.025	<0.025	<0.005	<0.005	<0.0400	<0.0250	<0.01	<0.01	<0.025	<0.02	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	**1.3**	**1.6**	**11.9**	**11.1**	**0.532**	**0.529**	**0.577**	**0.594**	**1.54**	**1.05**	**0.396**	**1.87**	**1.68**	**3.56**	**2.99**	**1.5**	**4.6**	**4.8**	**0.73**	**0.82**
1,1-Dichloroethene	0.52	**1.7**	**1.9**	**8.34**	**7.86**	**0.567**	**0.541**	**0.611**	**0.587**	**3.17**	**2.26**	**1.17**	**1.99**	**1.75**	**4.19**	**3.21**	**2.2**	**6.2**	**6.5**	**1.9**	**1.9**
1,1-Dichloroethane	---	0.15	0.18	0.43	0.428	0.0797	0.0834	0.0442	0.0472	0.397	0.38	0.0789	0.128	0.127	0.252	0.247	0.170	0.250	0.250	0.110	0.110
1,2-Dichloroethane	0.005	<0.020	<0.020	<0.100	<0.05	<0.025	<0.025	<0.005	<0.005	<0.0400	<0.0250	<0.01	<0.01	<0.025	<0.02	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	**1.9**	**2.2**	**5.86**	**5.66**	**0.875**	**0.815**	**0.808**	**0.783**	**4.19**	**3.36**	**1.82**	**2.02**	**1.87**	**4.1**	**3.54**	**2.7**	**7.0**	**7.1**	**2.1**	**2.0**
trans -1,2-Dichloroethene	---	<0.020	<0.020	<0.100	<0.05	<0.025	<0.025	0.0051	0.0064	<0.0400	<0.0250	<0.01	<0.01	<0.025	<0.02	<0.02	<0.005	**8.6**	**9.1**	<0.005	<0.005
Vinyl Chloride	0.0033	**0.69**	**0.67**	**1.32**	**1.22**	**0.421**	**0.372**	**0.219**	**0.23**	**2.4**	**2.09**	**0.589**	**0.902**	**0.802**	**1.89**	**1.56**	**0.47**	**2.1**	**2.2**	**0.86**	**0.82**
SVOCs (mg/L)																					
1,4-Dioxane (p-Dioxane)	---	NA		NA		NA		<0.0200	<0.0200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																					
pH (std. Units)	---	5.76	5.76	5.72	5.72	NA	NA	6.41	NA	5.87	5.87	6.40	5.94	5.94	5.67	5.67	6.02	6.05	6.05	5.41	5.41
Specific Conductance (mS/cm)	---	0.371	0.371	0.489	0.489	NA	NA	0.29	NA	0.482	0.482	0.442	0.400	0.40	0.404	0.404	0.499	0.669	0.669	0.288	0.288
Temperature (deg. C)	---	19.54	19.54	24.25	24.25	NA	NA	17.77	NA	24.82	24.82	19.80	20.16	20.16	21.70	21.70	23.12	17.50	17.50	20.19	20.19
Dissolved Oxygen (mg/L)	---	0.88	0.88	0.61	0.61	NA	NA	0.3	NA	0.08	0.08	0.31	0.22	0.22	0.48	0.48	0.85	2.22	2.22	0.53	0.53
ORP (mV)	---	-8.5	-8.5	-131.4	-131.4	NA	NA	7.4	NA	-14.6	-14.6	-100.7	8.0	8.0	-428.8	-428.8	4.5	-52.6	-52.6	-32.8	-32.8
Turbidity (NTU)	---	4.5	4.5	4	4	NA	NA	0.1	NA	5.3	5.3	4.6	20.1	20.1	0	0	10.1	7.4	7.4	2.7	2.7
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																					
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	0.046	0.063	0.062	0.057	NA	NA	0.0021	0.0045	0.074	0.08	0.016	0.023 J	0.048	0.078	0.078	NA	0.067	0.067	0.01	0.014
Ethane	---	0.0021	0.0042	0.0025	0.0024	NA	NA	0.00013	0.00032	0.0018	0.0019	0.00093	0.00077 J	0.003	0.00072	0.00072	NA	<0.009	<0.009	<0.009	<0.009
Methane	---	7.7	9.6	8.2	11	NA	NA	0.42	1.2	4.1	4.4	2.4	3.0 J	12.0	1.7	1.7	NA	6.4	6.4	7.9	8
Hydrogen (nmol/L)	---	1.2	NA	7.3	NA	NA	NA	2.8	0.0019	56	61	1.5	2.1	NA	0.92	0.92	NA	NA	NA	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-8 continued		MW-9/9R															
Date Sampled	TYPE 3/4 RRS mg/L	Dec-13	Dec-13 Dup-1	Oct-98	Dec-00	May-04	Nov-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Sep-09	Dec-09	May-10	Nov-10	May-12	Dec-12
VOCs (mg/L)																			
Chloroethane	---	0.067	0.078	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.01
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
1,1,1-Trichloroethane	13	0.74	0.79	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
1,1,2-Trichloroethane	0.005	<0.005	<0.005	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
Trichloroethylene	0.0052	**1.5**	**1.6**	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
1,1-Dichloroethene	0.52	**2.1**	**2.2**	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
1,1-Dichloroethane	---	0.28	0.28	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.005	<0.005	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	**2.2**	**2.2**	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
trans -1,2-Dichloroethene	---	<0.005	<0.005	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005
Vinyl Chloride	0.0033	**2.6**	**2.6**	0.003	<0.010	<0.001	0.0021	0.0013	0.00067 J	0.00056 J	0.00066J	0.0014	<0.001	<0.001	0.00068J	<0.001	<0.001	<0.002	<0.002
SVOCs (mg/L)																			
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0208	NA	NA	NA	NA	NA	NA
Field Parameters																			
pH (std. Units)	---	6.01	NA	NA	6.51	6.33	6.34	6.26	6.26	6.39	6.29	6.21	6.52	6.56	6.52	6.44	6.04	6.33	6.37
Specific Conductance (mS/cm)	---	0.311	NA	NA	0.24	0.328	0.459	0.484	0.413	0.384	0.396	0.415	0.306	0.294	0.351	0.186	0.227	0.323	0.216
Temperature (deg. C)	---	19.98	NA	NA	15.77	24.44	20.82	23.91	25.2	18.71	21.52	23.54	18.35	27.1	19.88	23.55	22.06	24.91	18.99
Dissolved Oxygen (mg/L)	---	3.89	NA	NA	0	3.85	0.22	4.07	0.41	0.37	0.34	0.41	2.85	0.21	1.12	4.8	0.86	0.82	3.31
ORP (mV)	---	-21.7	NA	NA	-62	31	-53.9	-113.1	-12.5	-52.9	-86.2	-128.6	34.6	28.6	-31.4	110	202.1	30.5	46.0
Turbidity (NTU)	---	5.3	NA	NA	0.7	0	3.8	1.1	0	3.8	0.3	0	10.6	0.3	2	9.7	4.6	4.12	8.3
Iron II (mg/L)	---	NA	NA	NA	6.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																			
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	0.049	NA	NA	0	0.000053	0.00033	0.00018	0.00023	0.00017	0.000078	0.00014	0.000009J	0.000002J	0.000042	0.000025 J	0.000041	NA	<0.007
Ethane	---	<0.0090	NA	NA	<0.000005	0.0000054	0.000032	0.00001	0.000008 J	0.000006 J	0.000008J	0.000019	<0.00001	0.000027	0.000002J	<0.00001	0.000004 J	NA	<0.009
Methane	---	6.8	NA	NA	2	0.48	2.5	1	1.5	0.74	1.1	2	0.087	0.062	0.094	0.0081 J	0.21	NA	0.084
Hydrogen (nmol/L)	---	NA	NA	NA	0.38	4501	0.71	1.1	1.5	2.1	3.7	1.4	0.65	210	28	14	0.8	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
1) The 450 nmol/L of Hydrogen result is anomalously high. Laboratory re-checked their calculation and confirmed this result. However, because this data point is a potential outlier, it will not be considered a valid data point for MW-9R in May 2004.
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-9/9R continued		MW-10								
Date Sampled	TYPE 3/4 RRS mg/L	Jun-13	Dec-13	Oct-98	Dec-00	Dec-03	May-04	Dec-04	May-05	Jun-06	Jun-13	Dec-13
VOCs (mg/L)												
Chloroethane	---	<0.01	<0.01	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	NA
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	NA	<0.005	<0.001	<0.002	<0.001	<0.001	<0.001	<0.005	NA
1,1,1-Trichloroethane	13	<0.005	<0.005	ND	<0.005	<0.001	<0.003	<0.001	<0.001	<0.001	<0.005	NA
1,1,2-Trichloroethane	0.005	<0.005	<0.005	NA	<0.005	<0.001	<0.004	<0.001	<0.001	<0.001	<0.005	NA
Trichloroethylene	0.0052	<0.005	<0.005	0.002	<0.005	<0.001	<0.005	<0.001	0.001	0.00057 J	<0.005	NA
1,1-Dichloroethene	0.52	<0.005	<0.005	ND	<0.005	0.0017	0.0014	<0.001	<0.001	0.00099 J	<0.005	NA
1,1-Dichloroethane	---	<0.005	<0.005	0.003	<0.005	0.0023	0.0024	0.0012	0.0015	0.0015	<0.005	NA
1,2-Dichloroethane	0.005	<0.005	<0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	NA
cis -1,2-Dichloroethene	0.2	<0.005	<0.005	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	NA
trans -1,2-Dichloroethene	---	<0.005	<0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	NA
Vinyl Chloride	0.0033	<0.002	<0.002	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	NA
SVOCs (mg/L)												
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters												
pH (std. Units)	---	6.37	6.33	NA	4.98	5.37	5.22	5.20	4.74	4.44	5.07	5.37
Specific Conductance (mS/cm)	---	0.337	0.402	NA	0.04	0.05	0.038	0.048	0.039	0.038	0.051	0.055
Temperature (deg. C)	---	21.54	20.49	NA	14.36	16.48	19.22	18.05	19.63	19.02	17.11	18.15
Dissolved Oxygen (mg/L)	---	1.49	0.24	NA	0.00	0.38	0.33	0.21	0.48	0.58	0.55	4.31
ORP (mV)	---	-27.4	-25.0	NA	-35.00	2.8	61.2	5.9	103.0	36.2	119.7	14.5
Turbidity (NTU)	---	9.6	9.2	NA	0.20	0.7	3.5	2.0	0.0	2.3	101.6	0.0
Iron II (mg/L)	---	NA	NA	NA	2.80	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)												
Iron II	---	NA	NA	NA	NA	NA	NA	NA	2.7	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	2.40	NA	NA	NA	1.2	NA	NA	NA
Chloride	---	NA	NA	NA	2.80	NA	NA	NA	2.5	NA	NA	NA
Nitrate	---	NA	NA	NA	<0.05	NA	NA	NA	<0.10	NA	NA	NA
Sulfate	---	NA	NA	NA	4.10	NA	NA	NA	<1.0	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	11.00	NA	NA	NA	7.5	NA	NA	NA
Total Sulfide	---	NA	NA	NA	<0.1	NA	NA	NA	<0.10	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	60	NA	NA	NA
Ethene	---	<0.007	<0.007	NA	<0.000005	<0.000005	0.000004 J	<0.000005	<0.00001	<0.00001	NA	NA
Ethane	---	<0.009	<0.009	NA	<0.000005	<0.000005	0.0000021 J	0.000018	0.000005	0.000002 J	NA	NA
Methane	---	0.24	1.8	NA	0.08	0.3	0.16	0.18	0.15	0.22	NA	NA
Hydrogen (nmol/L)	---	NA	NA	NA	0.28	1.1	1.8	0.63	1.2	24	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-11																	
Date Sampled	TYPE 3/4 RRS mg/L	Oct-98	Dec-00	Dec-03	May-04	Dec-04	May-05	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13
VOCs (mg/L)																			
Chloroethane	---	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	<0.01	<0.01	<0.01
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	<0.001	0.0016	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00083 J	0.0026	<0.001	0.0028	<0.001	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	ND	<0.010	<0.001	<0.001	<0.001	<0.001	0.00036 J	<0.001	<0.001	<0.001	0.00095J	0.00031J	0.0025	<0.001	<0.002	<0.002	<0.002	<0.002
SVOCs (mg/L)																			
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0200	NA	NA	NA	NA	NA	NA	NA
Field Parameters																			
pH (std. Units)	---	NA	5.18	5.54	5.51	5.41	5.44	4.28	5.16	5.2	4.2	5.62	5.51	5.17	5.21	5.09	4.93	4.85	5.52
Specific Conductance (mS/cm)	---	NA	0.43	0.06	0.06	0.06	0.058	0.111	0.044	0.047	0.1	0.038	0.038	0.06	0.059	0.047	0.185	0.101	0.056
Temperature (deg. C)	---	NA	8.47	10.95	21.2	14.54	18.48	20.2	11.85	18.55	20.49	15.61	14.14	20.18	17.22	22.36	14.32	20.97	14.82
Dissolved Oxygen (mg/L)	---	NA	0.00	0.27	0.36	0.19	0.45	0.39	0.29	0.33	0.53	0.19	0.20	0.13	0.40	1.10	3.15	0.94	4.75
ORP (mV)	---	NA	137.00	141.7	90.1	85.9	72.1	290.6	-221.7	200.6	462.2	92.5	143.3	115.2	156.0	190.1	264.6	58.7	155.9
Turbidity (NTU)	---	NA	4.50	10.3	10.8	2.5	5.8	8.6	5.5	5.4	1.5	3.7	29.5	9.1	8.8	9.04	9.8	3.1	3.9
Iron II (mg/L)	---	NA	2.60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																			
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	6.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	4.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	9.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.00040	0.000092	0.000025	0.00019	0.00012	0.00017	0.000008 J	0.000032	0.000015	0.00021	0.000042	0.00075 J	0.000042	NA	<0.007	<0.007	<0.007
Ethane	---	NA	<0.000005	<0.000005	<0.000005	0.0000018	<0.00001	0.000003 J	<0.00001	<0.00001	0.000002 J	0.000003J	<0.00001	0.000008 J	0.000004 J	NA	<0.009	<0.009	<0.009
Methane	---	NA	0.07	0.16	0.15	0.30	0.38	0.14	0.084	0.450	0.100	0.34	0.037	0.430 J	0.0064	NA	0.004	0.052	0.11
Hydrogen (nmol/L)	---	NA	<0.030	0.94	1.3	1.4	1.1	4.4	1.4	1.2	1.3	19	6.9	1.7	1.1	NA	NA	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-12													
Date Sampled	TYPE 3/4 RRS mg/L	Oct-98	Dec-00	May-04	Dec-04	May-05	Jun-06	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13
VOCs (mg/L)															
Chloroethane	---	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	ND	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	NA	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	ND	<0.010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002
SVOCs (mg/L)															
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters															
pH (std. Units)	---	NA	4.97	4.98	5.07	4.94	4.97	5.15	5.47	5.09	5.05	4.79	5.45	4.73	5.23
Specific Conductance (mS/cm)	---	NA	0.02	0.027	0.03	0.028	0.026	0.033	0.029	0.032	0.026	0.031	0.029	0.57	0.026
Temperature (deg. C)	---	NA	15.32	19.62	18.38	19.31	21.4	17.26	17.66	18.48	19.9	20.94	15.27	19.33	19.19
Dissolved Oxygen (mg/L)	---	NA	2.80	2.46	4.20	2.23	3.06	3.05	3.47	1.41	5.40	1.39	6.89	1.91	1.42
ORP (mV)	---	NA	280.00	160	269.0	275.5	325.6	144.1	246.9	283.9	-175.3	307.4	215.3	237.0	75.9
Turbidity (NTU)	---	NA	1.20	2.5	10.2	10	11.7	7.7	7.5	14.3	82.9	41.9	80.8	8.6	8.4
Iron II (mg/L)	---	NA	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)															
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	2.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	1.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	2.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.00003	0.0000085	########	<0.00001	<0.00001	NA	NA	NA	NA	NA	<0.007	<0.007	<0.007
Ethane	---	NA	<0.000005	<0.000005	<0.000005	<0.00001	<0.00001	NA	NA	NA	NA	NA	<0.009	<0.009	<0.009
Methane	---	NA	0.01	0.0034	0.0059	0.0022	0.000086	NA	NA	NA	NA	NA	<0.004	<0.004	<0.004
Hydrogen (nmol/L)	---	NA	<0.030	NA	0.58	1.5	1.7	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-15													
Date Sampled	TYPE 3/4 RRS mg/L	Jun-99	Dec-00	Jun-06	Dec-06	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13
VOCs (mg/L)															
Chloroethane	---	NA	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	ND	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	ND	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	NA	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	NA	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	ND	<0.0050	<0.001	<0.001	0.0011	0.0011	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	ND	<0.0050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	ND	<0.01	0.0012	0.0022	0.0014	0.0012	0.00045J	<0.001	0.0015	0.0015	<0.002	<0.002	<0.002	<0.002
SVOCs (mg/L)															
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	<0.0211	NA	NA	NA	NA	NA	NA	NA
Field Parameters															
pH (std. Units)	---	NA	6.47	5.92	6.06	6.06	5.25	5.96	5.80	6.07	5.81	5.45	5.97	6.07	5.96
Specific Conductance (mS/cm)	---	NA	0.23	0.251	0.243	0.375	0.193	0.109	0.072	0.243	0.197	0.047	0.198	0.219	0.11
Temperature (deg. C)	---	NA	17.29	26.5	20.68	22.36	24.42	19.2	17.94	21.82	23.77	25.66	19.8	21.32	21.78
Dissolved Oxygen (mg/L)	---	NA	0.00	0.35	0.28	0.4	0.35	1.22	0.74	0.19	0.42	0.44	0.70	0.39	0.42
ORP (mV)	---	NA	-62.0	4.8	-262.9	-48.7	33.6	45.8	28.3	-33.9	-319.2	61.9	-20.8	-41.5	20.7
Turbidity (NTU)	---	NA	1.0	0	0.9	0	0.2	9.7	2.7	4.8	1.8	2.68	8.0	4.3	7.1
Iron II (mg/L)	---	NA	4.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)															
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	9.90	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	3.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	<0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	0.0002	0.000088	0.000033	0.00009	0.000049	0.000004J	0.000004J	0.000053 J	0.000024	NA	<0.007	<0.007	<0.007
Ethane	---	NA	0.00011	0.00002	0.000046	0.000095	0.000028	0.000014	<0.00001	0.000055 J	0.000006 J	NA	<0.009	<0.009	<0.009
Methane	---	NA	9.4	8.8	8.5	8.6	6.2	2.4	0.54	7.7 J	1.9	NA	7.5	6.9	5.3
Hydrogen (nmol/L)	---	NA	2	2.5	3	3.1	69	0.62	11.0	2.2	1.8	NA	NA	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-16D						MW-18							
Date Sampled	TYPE 3/4 RRS mg/L	May-07	Jun-08	Apr-09	Dec-09	May-10	Nov-10	Sep-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13
VOCs (mg/L)															
Chloroethane	---	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0011	0.0012	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0025	0.0022	0.0019	0.0019	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00085J	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0021	0.0019	0.0013	0.0020	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0051**	**0.0038**	**0.0035**	**0.0038**	**0.0033**	0.0028	0.0032	**0.0038**
SVOCs (mg/L)															
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters															
pH (std. Units)	---	11.1	9.79	12.09	11.51	11.48	12.67	5.32	5.76	5.70	5.63	5.72	5.91	5.58	5.72
Specific Conductance (mS/cm)	---	0.444	0.294	4.56	0.705	1.58	1.581	0.173	0.221	0.361	0.276	0.355	0.354	0.291	0.241
Temperature (deg. C)	---	20.73	21.83	19.82	18.18	20.54	16.99	28.05	20.6	23.25	23.11	24.61	20.48	23.55	21.47
Dissolved Oxygen (mg/L)	---	0.71	0.75	4.64	5.95	5.89	5.47	0.28	0.29	0.45	0.63	1.2	0.78	0.5	0.12
ORP (mV)	---	138.9	272.3	-55.9	-59.2	120.4	6.5	138.9	-30.8	12.5	-313.2	6.9	0.4	-39.1	8.6
Turbidity (NTU)	---	12	5.8	6.2	18.9	2.6	12.6	9.7	10.1	21.4	6.9	7.49	7.1	4.4	8.2
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)															
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	NA	NA	NA	NA	NA	0.00066	0.00045	0.00065 J	0.00028	NA	<0.007	<0.007	<0.007
Ethane	---	NA	NA	NA	NA	NA	NA	0.00033	0.0015	0.00099 J	0.00063	NA	<0.009	<0.009	<0.009
Methane	---	NA	NA	NA	NA	NA	NA	3.7	3.8	2.5 J	3.8	NA	6.8	7.2	6.9
Hydrogen (nmol/L)	---	NA	NA	NA	NA	NA	NA	27	5.8	0.98	7.2	NA	NA	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-19									MW-20								
Date Sampled	TYPE 3/4 RRS mg/L	Sep-09	Dec-09	May-10	DUP-2	Nov-10	May-12	Dec-12	Jun-13	Dec-13	Sep-09	Dec-09	Dec-09 DUP-1	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13
VOCs (mg/L)																			
Chloroethane	---	0.659	0.314	0.735	0.727	0.344	0.31	0.28	1.3	0.340	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010	<0.01	<0.01	<0.01
1,1,2,2-Tetrachloroethane	0.005	<0.005	<0.005	<0.020	<0.020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	<0.005	<0.005	0.0501	0.0486	<0.005	<0.005	<0.005	0.033	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	<0.005	<0.005	<0.020	<0.020	<0.020	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	<0.005	<0.005	**0.0172 J**	**0.0171 J**	**0.0961**	**0.550**	**0.20**	**0.14**	**0.280**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	0.0118	0.0044 J	0.123	0.123	0.0682	0.500	0.12	0.45	0.200	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	0.0381	0.0129	0.264	0.258	0.0212	0.050	0.018	0.21	0.012	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	0.0019J	<0.005	<0.020	<0.020	.0011 J	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	0.0243	0.007	0.196	0.186	0.0543	**0.4**	0.11	**0.65**	0.087	0.0016	0.0032	0.0031	0.0027	0.0020	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	<0.005	<0.005	<0.020	<0.020	<0.005	<0.005	<0.005	0.011	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	**0.502**	**0.113**	**2.02**	**2.01**	**0.198**	**0.83**	**0.33**	**2.9**	**0.300**	**0.0102**	**0.0115**	**0.0116**	**0.0083**	**0.0067**	**0.0068**	**0.0051**	<0.002	**0.0046**
SVOCs (mg/L)																			
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters																			
pH (std. Units)	---	5.85	6.19	5.66	5.66	6.27	5.55	5.87	5.85	6.3	5.67	5.87	5.87	4.93	5.62	5.66	5.95	5.62	5.76
Specific Conductance (mS/cm)	---	0.408	0.413	0.477	0.477	0.374	0.315	0.364	0.434	0.397	0.306	0.311	0.311	0.326	0.313	0.294	0.459	0.369	0.274
Temperature (deg. C)	---	23.76	17.84	18.52	18.52	18.54	20.36	16.78	17.61	18.42	24.03	18.94	18.94	19.8	20.8	22.50	18.65	20.28	20.38
Dissolved Oxygen (mg/L)	---	0.26	0.26	0.27	0.27	0.44	1.3	0.70	0.37	4.06	0.37	0.35	0.35	0.29	0.48	0.83	2.15	0.53	0.09
ORP (mV)	---	-36.6	-49.2	-14.0	-14.0	-12.1	36.4	-22.8	-28.4	-38.8	7.5	-23.3	-23.3	44.1	64.9	6.1	-58.9	-42.5	-23.4
Turbidity (NTU)	---	6.3	9.7	10.0	10.0	23.0	33.0	9.3	33.6	8.6	9.5	14.1	14.1	3.9	9.8	3.85	12.6	2.9	16.7
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)																			
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	0.78	0.37	0.99 J	1.4	0.77	NA	0.47	0.37	0.38	0.0022	0.0019	0.0054	0.00081 J	0.00048	NA	<0.007	<0.007	<0.007
Ethane	---	0.022	0.014	0.049 J	0.1	0.029	NA	0.081	0.063	0.041	0.00082	0.0005	0.0021	0.00019 J	0.00014	NA	<0.009	<0.009	<0.009
Methane	---	3.7	1.4	6.9 J	15	5.8	NA	7.0	5.3	5.4	7.3	4.4	13	7.2 J	5	NA	5.8	8.9	6.1
Hydrogen (nmol/L)	---	11	26	0.97	NA	1.5	NA	NA	NA	NA	5.4	1.1	NA	0.93	1.5	NA	NA	NA	NA

Notes:
Bold concentrations exceed Risk Reduction Standards
NA - Data not available or not analyzed
ND - Non Detect
J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the detection limit or if the concentration reported is estimated due to other QC reasons.

Table 4: Summary of VOCs, Field Measurements, and MNA Parameters (1998-2013)

Sample Location		MW-20D								MW-21			
Date Sampled	TYPE 3/4 RRS mg/L	Sep-09	Dec-09	May-10	Nov-10	May-12	Dec-12	Jun-13	Dec-13	May-12	Dec-12	Jun-13	Dec-13
VOCs (mg/L)													
Chloroethane	---	<0.001	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	13	0.0053	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	0.0052	**0.012**	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.52	0.0191	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	---	0.00099 J	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.005	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.2	0.0152	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	---	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.0033	**0.0071**	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	**0.0075**	**0.005**	**0.0071**	**0.0082**
SVOCs (mg/L)													
1,4-Dioxane (p-Dioxane)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters													
pH (std. Units)	---	6.14	5.80	4.95	4.36	4.38	4.84	4.43	5.12	5.93	6.05	5.95	6.42
Specific Conductance (mS/cm)	---	0.145	0.084	0.053	0.043	0.050	0.153	0.093	0.051	0.398	0.472	0.476	0.462
Temperature (deg. C)	---	23.21	19.25	21.2	20.83	22.27	19.69	20.98	21.04	20.98	17.32	18.03	17.64
Dissolved Oxygen (mg/L)	---	1.79	2.08	2.09	0.41	1.01	2.11	0.76	5.27	1.79	0.71	2.46	4.18
ORP (mV)	---	40.2	181.5	262.6	-305.3	266.7	241.8	143.9	4.04	-20.6	-34.5	-50.2	-27
Turbidity (NTU)	---	364.3	73.8	5.6	200.1	9.40	19.7	9.7	9.0	25.8	7.7	2.2	9
Iron II (mg/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Geochemical Natural Attenuation Parameters (mg/L)													
Iron II	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Alkalinity	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Sulfide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	---	NA	NA	NA	NA	NA	<0.007	<0.007	<0.007	NA	<0.007	<0.007	<0.007
Ethane	---	NA	NA	NA	NA	NA	<0.009	<0.009	<0.009	NA	<0.009	<0.009	<0.009
Methane	---	NA	NA	NA	NA	NA	<0.004	<0.004	<0.004	NA	7.1	7.5	8.4
Hydrogen (nmol/L)	---	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Prepared by: MHA 12/19/2013
Checked by: TRK 1/31/2014

Table 5
Summary of Surface Water Analytical Results

Sample Location	SW-1	SW-2						SW-3	SW-4					SW-5				SW-6			
Date Sampled	4/13/2009	4/13/2009	5/17/2010	5/30/2012	12/13/2012	6/6/2013	12/5/2013	4/13/2009	5/17/2010	5/30/2012	12/13/2012	6/6/2013	12/5/2013	5/30/2012	12/13/2012	6/6/2013	12/5/2013	5/30/2012	12/13/2012	6/6/2013	12/5/2013
VOCs (mg/L)																					
Chloroethane	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.001	<0.001	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1,2,2-Tetrachloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Trichloroethylene	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	<0.001	<0.001	0.0006[J]	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis -1,2-Dichloroethene	0.00096[J]	<0.001	0.00098[J]	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans -1,2-Dichloroethene	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Vinyl Chloride	0.00044[J]	0.00048[J]	0.00042[J]	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Prepared by: MHA 1/27/2014
Checked by: TRK 1/31/2014

Notes:

J - Qualification flags were placed on values that were below the laboratory reporting limit but greater than the method detection limit. Concentration reported is estimated

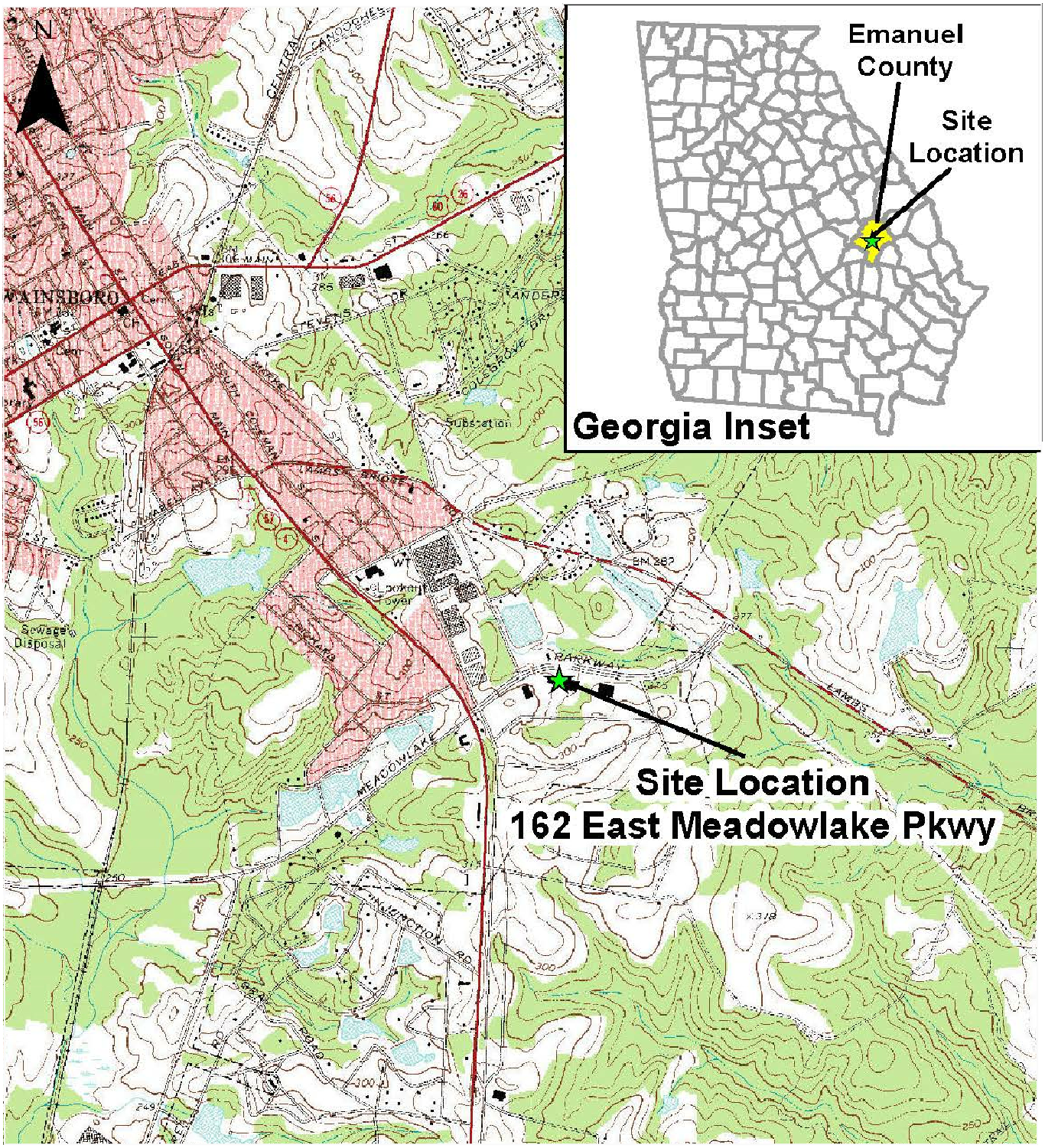
NA = not analyzed

TABLE 6: SUMMARY OF HOURS INVOICED AND DESCRIPTION OF SERVICES

	Hours Invoiced	Billing Period	Invoice #	Description of Services
Gregory J. Wrenn, P.E.	0	07/20/2013-08/23/2013	H02101471	Finalize and submit VRP Status Report No.3.
Total Project Hours for Billing Period	8.1		8/29/2013	
Gregory J. Wrenn, P.E.	5.0	08/24/2013-10/18/2013	H08100697	Update environmental remediation reserve estimate.
Total Project Hours for Billing Period	5		10/30/2013	
Gregory J. Wrenn, P.E.	4	10/19/2013-12/13/2013	H08100856	Coordinate/conduct December 2013 semi-annual groundwater sampling event.
Total Project Hours for Billing Period	94.3		12/20/2013	
Gregory J. Wrenn, P.E.	1.5	12/14/2013-1/24/2014	H08100916	Prepare draft VRP Status Report No. 4
Total Project Hours for Billing Period	7		2/3/2014	
Total Hours for PE Gregory J. Wrenn	**10.5**			
Total Project Hours	**114.4**			

Prepared by: MHA 2/3/2014
Checked by: GJW 2/3/2014

FIGURES



Source: USGS 7.5 Minute Topographic Quadrangle, Swainsboro Quad

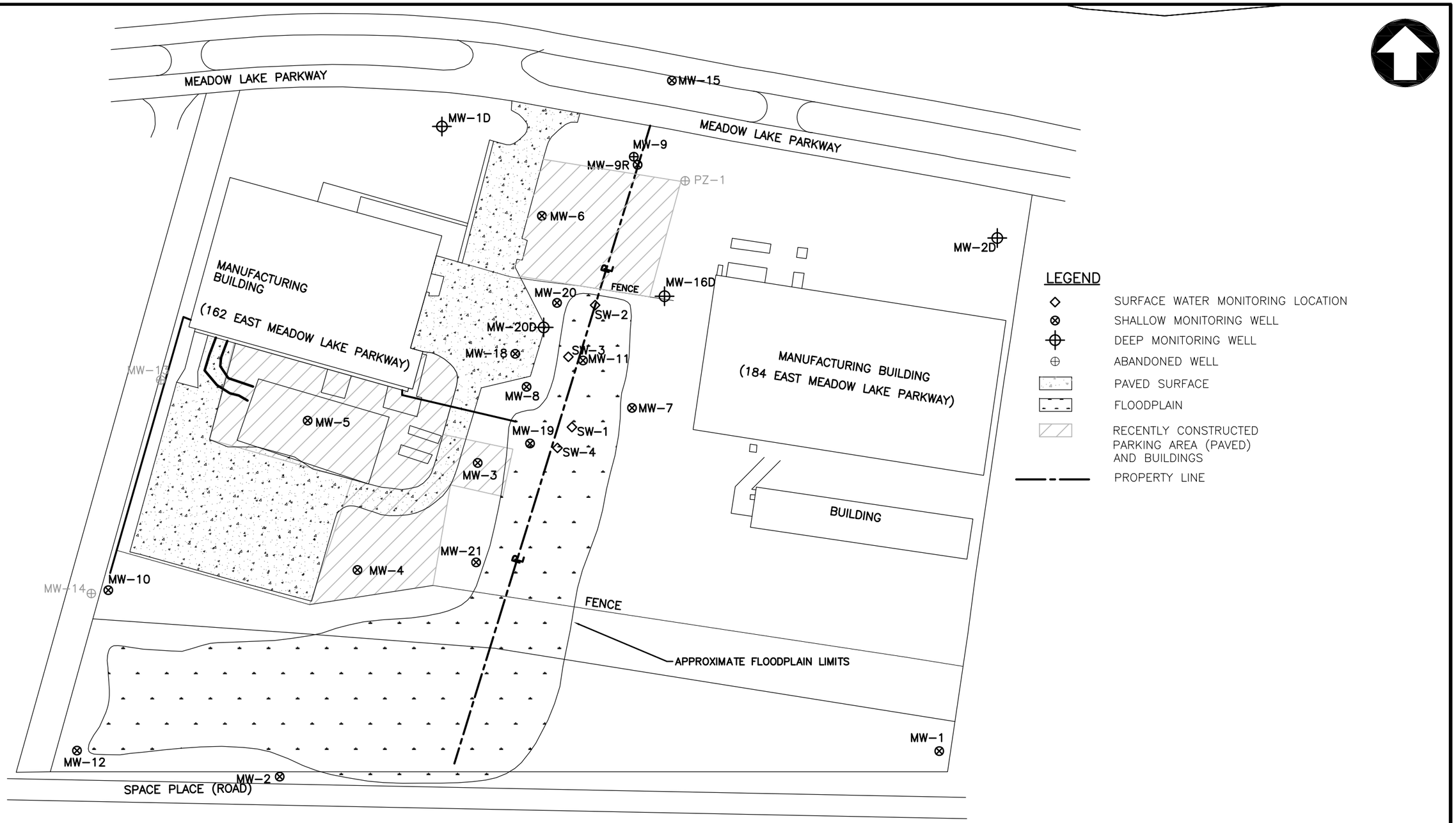
STI PROPERTIES, INC
162 E. MEADOWLAKE PKWY
SWAINSBORO, GA

amec
AMEC Environment & Infrastructure, Inc.
3200 TOWN POINT DRIVE, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421–3400

SITE LOCATION MAP

JOB NO. 6125–08–0149 FIGURE 1

PREPARED BY/DATE
CHECKED BY/DATE



SCALE IN FEET

0 100 200

SOURCE: BASE MAP EMCON, 12/98 AND 6/99. GIS, AND ESRI WEBMAP SERVICE.

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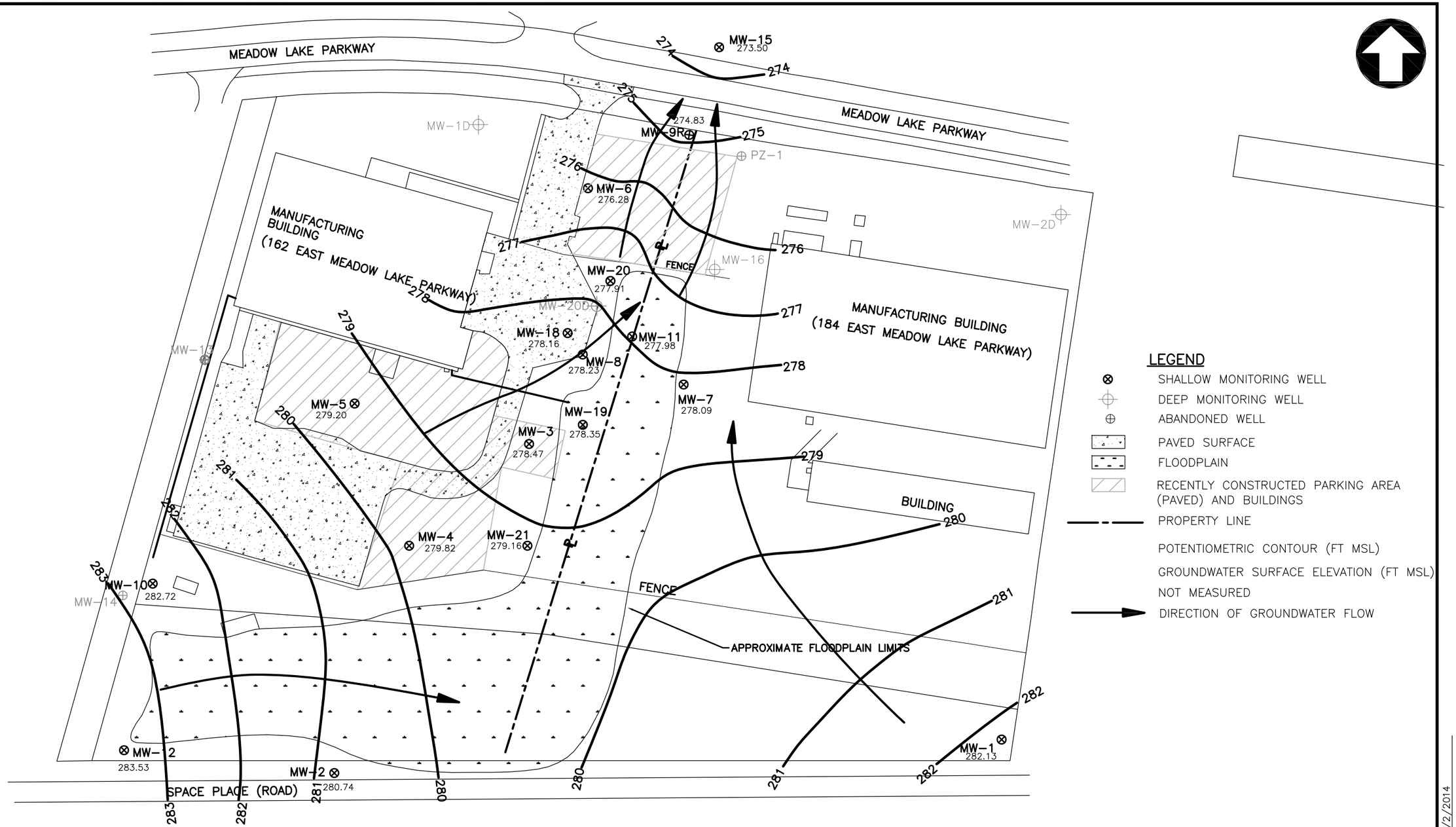
FIGURE 2
SITE LAYOUT MAP

JOB NO. 6125-08-0149

PREPARED BY/DATE MHA 6/22/2012
CHECKED BY/DATE RPR 6/26/2012

J:\STI\DEC 2013\FIG 3a-SHALLOW ZONE- POTMAP DEC 2013.dwg - Layout1 01/27/2014 3:17pm Tonya.Gladstone



LEGEND

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL
- PAVED SURFACE
- FLOODPLAIN
- RECENTLY CONSTRUCTED PARKING AREA (PAVED) AND BUILDINGS
- PROPERTY LINE
- POTENTIOMETRIC CONTOUR (FT MSL)
- GROUNDWATER SURFACE ELEVATION (FT MSL)
- NOT MEASURED
- DIRECTION OF GROUNDWATER FLOW

SCALE IN FEET

0 100 200

SOURCE: BASE MAP EMCON, 12/98 AND 6/99

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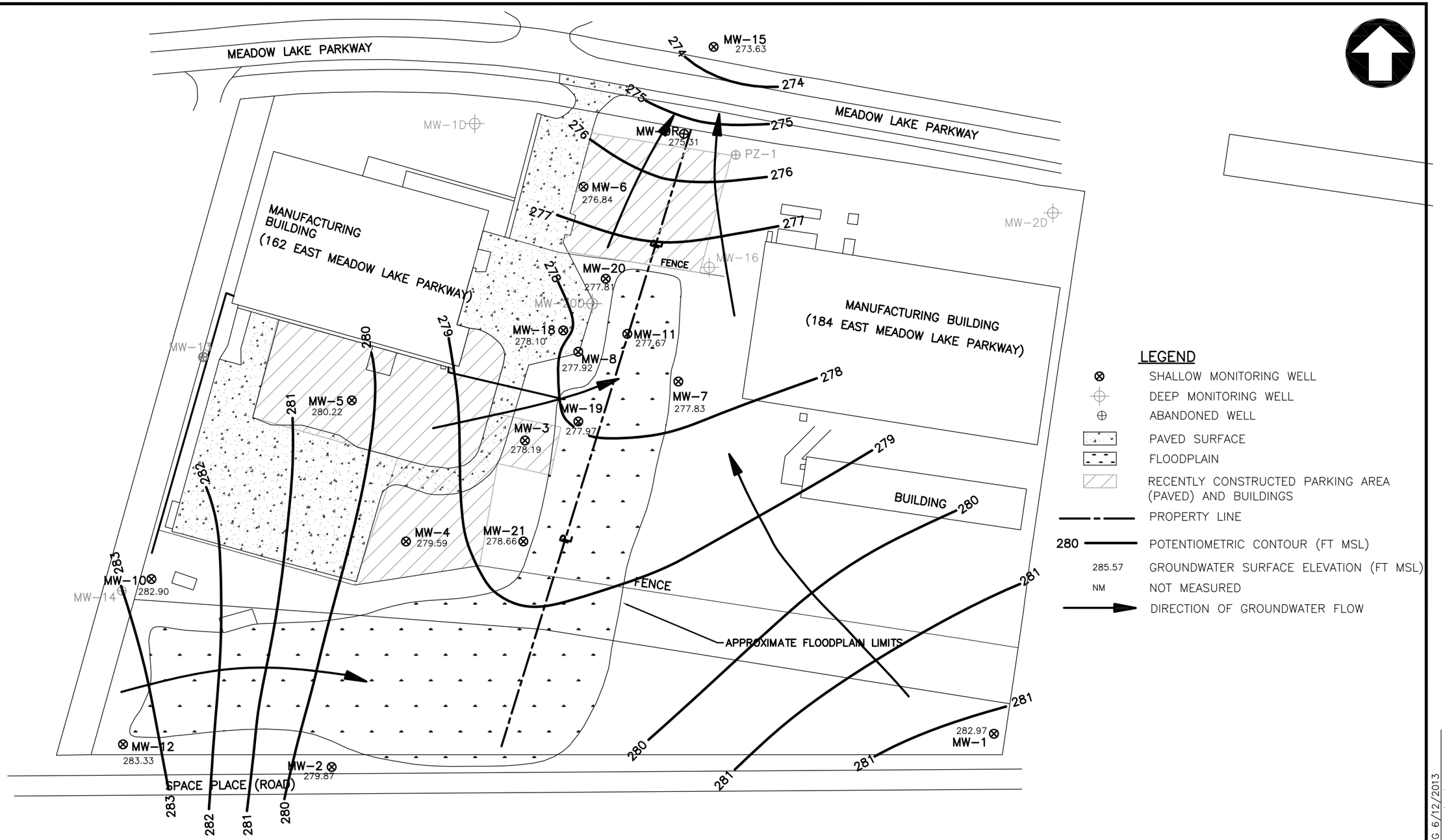
FIGURE 3a
SHALLOW ZONE
POTENTIOMETRIC SURFACE MAP
DECEMBER 2013

JOB NO. 6125-08-0149

PREPARED BY/DATE TG 1/2/2014
CHECKED BY/DATE



SCALE IN FEET

0 100 200

SOURCE: BASE MAP EMCON, 12/98 AND 6/99

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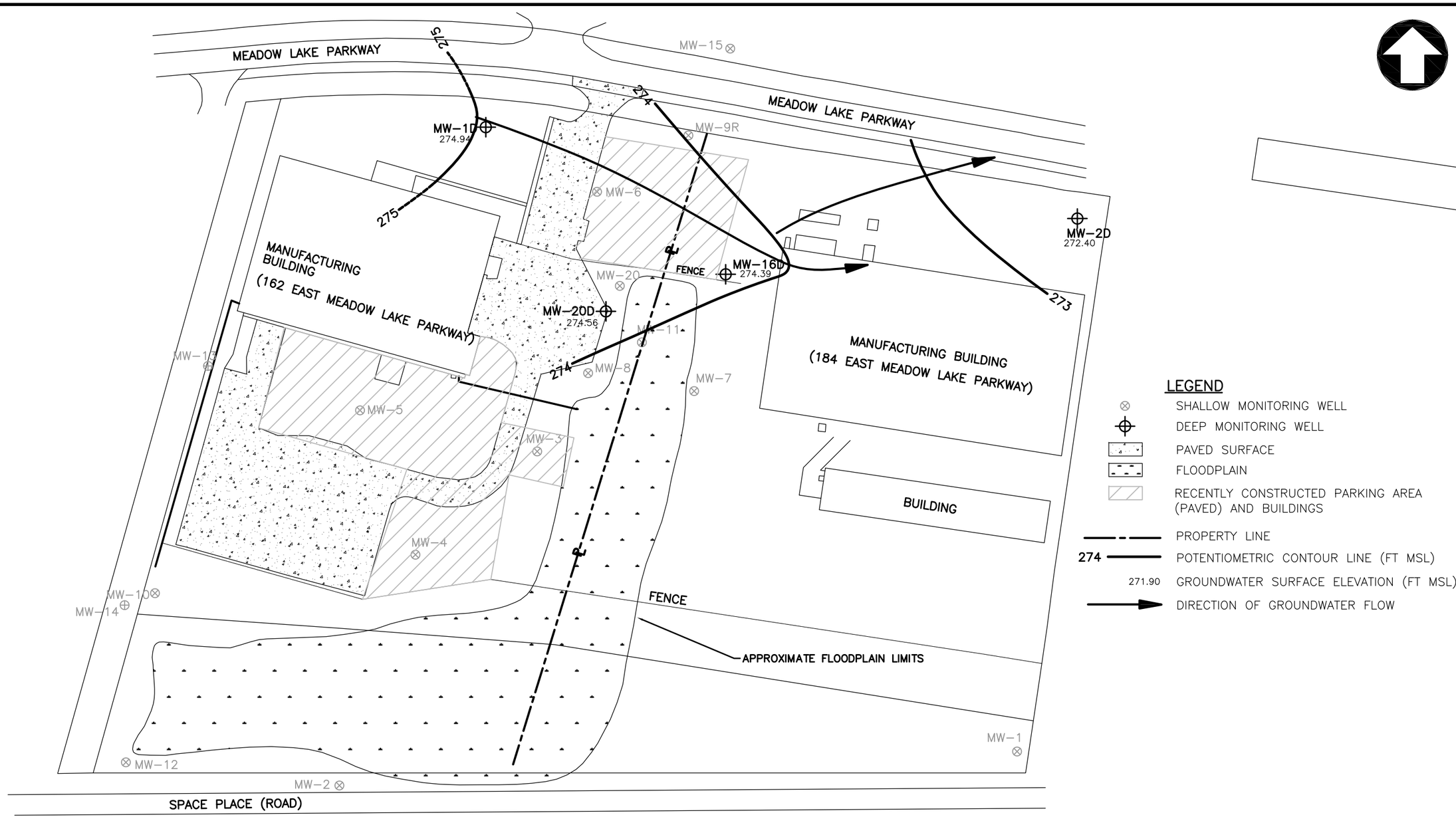
FIGURE 3b
SHALLOW ZONE
POTENTIOMETRIC SURFACE MAP
JUNE 2013

JOB NO. 6125-08-0149

PREPARED BY/DATE TG 6/12/2013
CHECKED BY/DATE RPR 6/12/2013



SCALE IN FEET

0 100 200

SOURCE: EMCON, 12/98 AND 6/99

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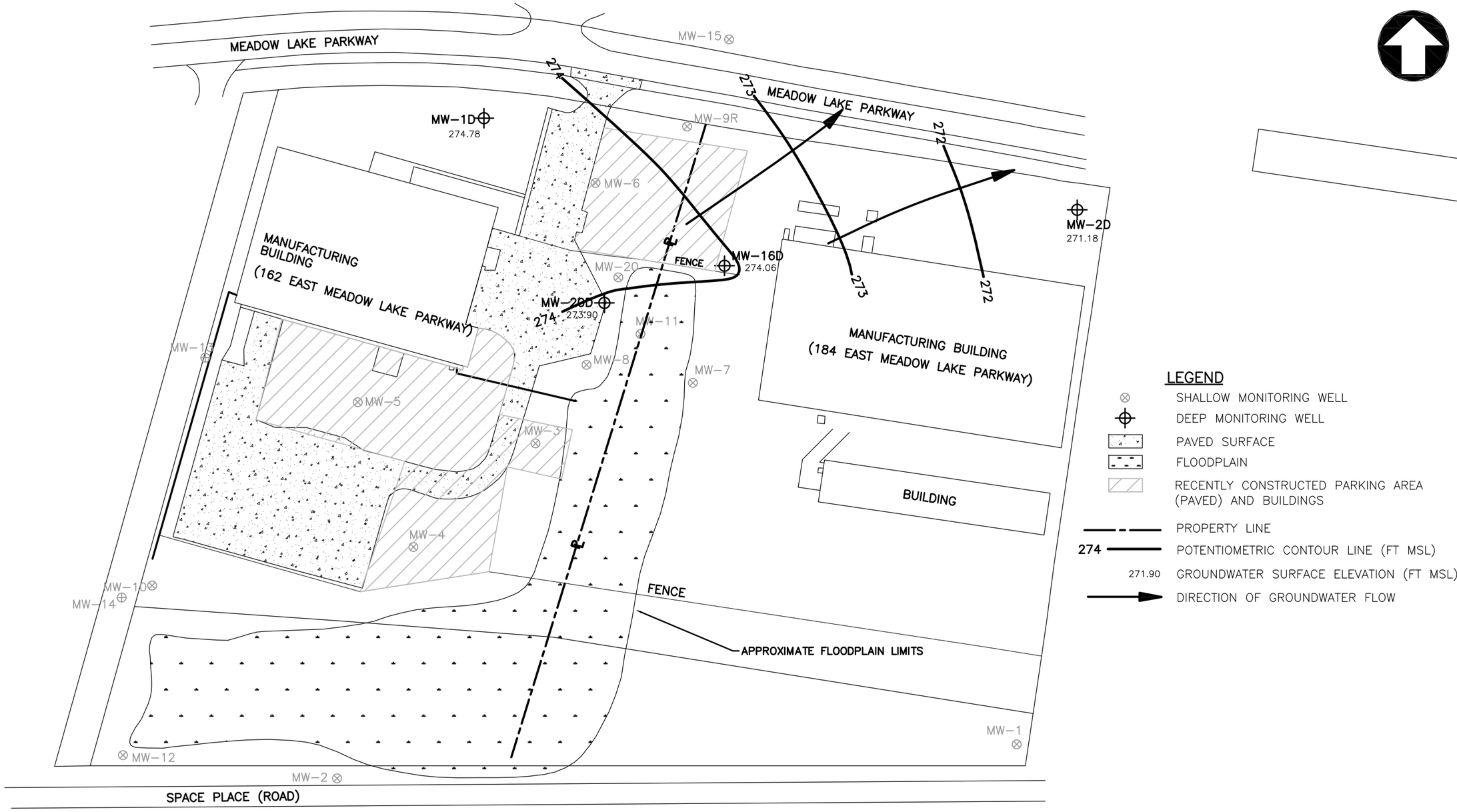
FIGURE 4a
DEEP ZONE
POTENTIOMETRIC SURFACE MAP
DECEMBER 2013

JOB NO. 6125-08-0149

PREPARED BY/DATE TG 1/2/2014
CHECKED BY/DATE



SCALE IN FEET

0 100 200

SOURCE: EMCON, 12/98 AND 6/99

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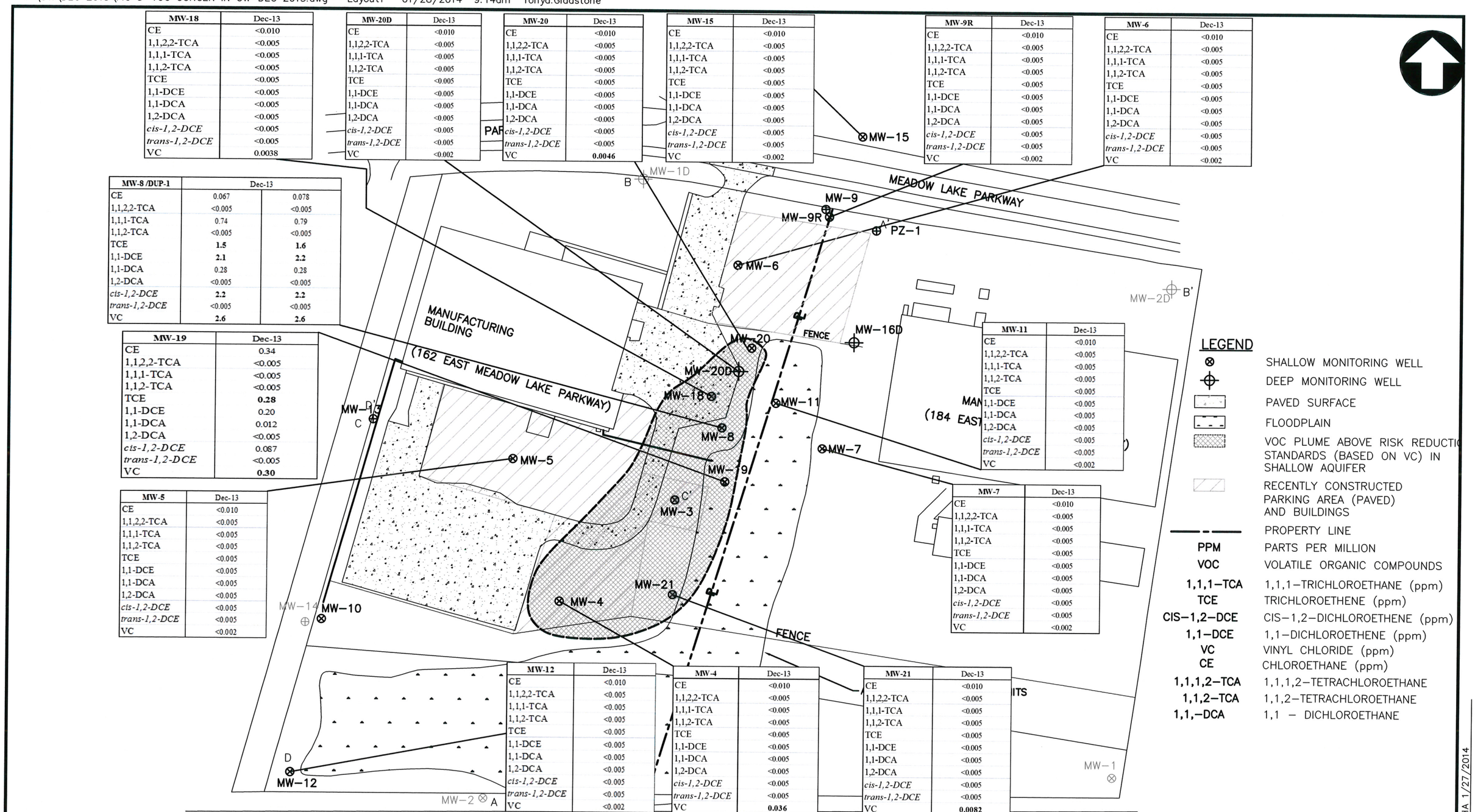
FIGURE 4b
DEEP ZONE
POTENTIOMETRIC SURFACE MAP
JUNE 2013

JOB NO. 6125-08-0149

PREPARED BY/DATE TG 6/12/2013
CHECKED BY/DATE RPR 6/12/2013

J:\STI\DEC 2013\FIG 5-VOC CONCEN IN GW-DEC 2013.dwg - Layout1 01/28/2014 9:14am Tonya.Gladstone



MW-18	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	0.0038

MW-20D	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-20	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	**0.0046**

MW-15	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-9R	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-6	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-8 /DUP-1	Dec-13	
CE	0.067	0.078
1,1,2,2-TCA	<0.005	<0.005
1,1,1-TCA	0.74	0.79
1,1,2-TCA	<0.005	<0.005
TCE	**1.5**	**1.6**
1,1-DCE	**2.1**	**2.2**
1,1-DCA	0.28	0.28
1,2-DCA	<0.005	<0.005
cis-1,2-DCE	**2.2**	**2.2**
trans-1,2-DCE	<0.005	<0.005
VC	**2.6**	**2.6**

MW-19	Dec-13
CE	0.34
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	**0.28**
1,1-DCE	0.20
1,1-DCA	0.012
1,2-DCA	<0.005
cis-1,2-DCE	0.087
trans-1,2-DCE	<0.005
VC	**0.30**

MW-5	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-11	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-7	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-12	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

MW-4	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	**0.036**

MW-21	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	**0.0082**

SCALE IN FEET

0 100 200

SOURCE: BASE MAP EMCON, 12/98 AND 6/99. NEW SURVEYED POINTS, MW-3, 4, 5, 18, 19, 20 AND 20D, SEPTEMBER 22, 2009.

STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

amec
AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

FIGURE 5
VOC CONCENTRATIONS IN GROUNDWATER
DECEMBER 2013

JOB NO. 6125-08-0149

PREPARED BY/DATE MHA 1/27/2014
CHECKED BY/DATE

J:\STI\DEC 2013\FIG 6-SURFACE WATER ANALYTICAL RESULTS DEC2013.dwg - Layout1 01/27/2014 3:13pm Tonya.Gladstone

SW-6	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

SW-2	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

SW-5	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

SW-4	Dec-13
CE	<0.010
1,1,2,2-TCA	<0.005
1,1,1-TCA	<0.005
1,1,2-TCA	<0.005
TCE	<0.005
1,1-DCE	<0.005
1,1-DCA	<0.005
1,2-DCA	<0.005
cis-1,2-DCE	<0.005
trans-1,2-DCE	<0.005
VC	<0.002

SOURCE: BASE MAP EMCON, 12/98 AND 6/99. GIS, AND ESRI WEBMAP SERVICE.

STI PROPERTIES, INC.
162 EAST MEADOWLAKE PKWY
SWAINSBORO, GEORGIA

amec
AMEC Environment & Infrastructure, Inc.
1075 BIG SHANTY ROAD, NW, SUITE 100
KENNESAW, GEORGIA 30144 (770) 421-3400

FIGURE 6
SURFACE WATER ANALYTICAL RESULTS
DECEMBER 2013

JOB NO. 6125-08-0149

PREPARED BY/DATE MHA 1/27/2014
CHECKED BY/DATE

APPENDIX A

LABORATORY REPORTS

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

December 13, 2013

Gregory Wrenn
AMEC E&I, Inc.
1075 Big Shanty Road, NW, Suite 100
Kennesaw GA 30144

TEL: (770) 421-3400
FAX: (770) 421-3486

RE: Swainsboro GA

Dear Gregory Wrenn: Order No: 1312500

Analytical Environmental Services, Inc. received 21 samples on 12/5/2013 12:10:00 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 07/01/13-06/30/14.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) 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.

Tara Esbeck

Tara Esbeck
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1312500

Date: 12/5/13 Page 1 of 2

COMPANY: AMEC E&I

ADDRESS: 1075 Big Shanty Rd Ste 100 Kennesaw, GA 30144

PHONE: 770-421-3400

FAX: 770-421-3486

SAMPLED BY: Daniel Howard, Ever Guillen

SIGNATURE: Daniel Howard

ANALYSIS REQUESTED: * VOC list + 8260B methylene chloride (SOP-RK175)

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) HCl	PRESERVATION (See codes) HCl	REMARKS	No # of Containers
1	MW-12	12/3/13	1140	X		GW	2	2		4
2	MW-15	↓	1325	X		GW	2	2		4
3	MW-9R		1540	X		GW	2	2		4
4	MW-5		1256	X		GW	2	2		4
5	MW-4	↓	1511	X		GW	2	2		4
6	Trip Blank-1	12/4/13	1215	X		GW	2			2
7	MW-21	↓	0945	X		GW	2	2		4
8	MW-19		1121	X		GW	2	2		4
9	MW-8		1306	X		GW	2	2		4
10	DUP-1		1200	X		GW	2			2
11	MW-20D		1446	X		GW	2	2		4
12	MW-11		1546	X		GW	2	2		4
13	MW-6		1045	X		GW	2	2		4
14	MW-7	↓	1240	X		GW	2	2		4

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Daniel Howard	12/5/13 1710	1: Jan B	12/5/13 17.10
2:		2:	
3:		3:	

PROJECT INFORMATION
PROJECT NAME: STI Swainsboro
PROJECT #: 6125080149
SITE ADDRESS: Swainsboro GA
SEND REPORT TO: Greg Wrenn
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers

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

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

SPECIAL INSTRUCTIONS/COMMENTS:
* VOC list - TCE, 1,1,22-TCA trans-1,2-DCE, chloroethene, 1,1-DCE vinyl chloride, 1,1,2-TCA, 1,1-DCA cis-1,2-DCE, 1,1,1-TCA, 1,2-DCA

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

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

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

White Copy - Original; Yellow Copy - Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1312500

Date: 12/5/13 Page 2 of 2

COMPANY: AMEC E&I

ADDRESS: 1075 Big Shanty Rd Ste 100 Kennesaw, GA 30144

PHONE: 770-421-3400

FAX: 770-421-3486

SAMPLED BY: Daniel Howard, Ever Guillen

SIGNATURE: Daniel Howard

ANALYSIS REQUESTED: * VOC list + 8260B; methane, ethane, ethene (SOP-HSK1715)

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) HY	HY	REMARKS	No # of Containers
1	MW-20	12/4/13	1540	X		GW	2	2		4
2	MW-18	12/5/13	1115	X		GW	2	2		4
3	EB-1		1100	X		GW	2			2
4	SW-2		1145	X		GW	2			2
5	SW-4		1200	X		SW	2			2
6	SW-5		1215	X		SW	2			2
7	SW-6		1230	X		SW	2			2
8	Temp Blank									
9										
10										
11										
12										
13										
14										

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Daniel Howard	12/5/13 1710	1: [signature]	12/5/13 17:10
2:		2:	
3:		3:	

PROJECT INFORMATION
PROJECT NAME: STI Swainsboro
PROJECT #: 6125080149
SITE ADDRESS: Swainsboro GA
SEND REPORT TO: Greg Wrenn
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers

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

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

SPECIAL INSTRUCTIONS/COMMENTS: see pg 1 for VOC list

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

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

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

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-12
Project Name:	Swainsboro GA	**Collection Date:**	12/3/2013 11:40:00 AM
Lab ID:	1312500-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:18	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:18	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:18	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:18	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 14:18	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:18	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 14:18	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 14:18	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 14:18	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 14:18	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 14:18	NP
Surr: 4-Bromofluorobenzene	82.5	66.2-120		%REC	184616	1	12/09/2013 14:18	NP
Surr: Dibromofluoromethane	105	79.5-121		%REC	184616	1	12/09/2013 14:18	NP
Surr: Toluene-d8	100	77-117		%REC	184616	1	12/09/2013 14:18	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 10:02	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 10:02	SH
Methane	BRL	4		ug/L	184674	1	12/11/2013 10:02	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-15
Project Name:	Swainsboro GA	**Collection Date:**	12/3/2013 1:25:00 PM
Lab ID:	1312500-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:43	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:43	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:43	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:43	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 14:43	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 14:43	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 14:43	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 14:43	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 14:43	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 14:43	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 14:43	NP
Surr: 4-Bromofluorobenzene	86	66.2-120		%REC	184616	1	12/09/2013 14:43	NP
Surr: Dibromofluoromethane	102	79.5-121		%REC	184616	1	12/09/2013 14:43	NP
Surr: Toluene-d8	99.7	77-117		%REC	184616	1	12/09/2013 14:43	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 10:10	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 10:10	SH
Methane	5300	200		ug/L	184674	50	12/11/2013 10:21	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-9R
Project Name:	Swainsboro GA	**Collection Date:**	12/3/2013 3:40:00 PM
Lab ID:	1312500-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:07	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:07	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:07	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:07	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:07	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:07	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 15:07	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:07	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:07	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:07	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 15:07	NP
Surr: 4-Bromofluorobenzene	84.4	66.2-120		%REC	184616	1	12/09/2013 15:07	NP
Surr: Dibromofluoromethane	105	79.5-121		%REC	184616	1	12/09/2013 15:07	NP
Surr: Toluene-d8	103	77-117		%REC	184616	1	12/09/2013 15:07	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 10:28	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 10:28	SH
Methane	1800	80		ug/L	184674	20	12/11/2013 10:38	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-5
Project Name:	Swainsboro GA	**Collection Date:**	12/3/2013 12:56:00 PM
Lab ID:	1312500-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:31	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:31	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:31	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:31	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:31	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:31	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 15:31	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:31	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:31	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:31	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 15:31	NP
Surr: 4-Bromofluorobenzene	83.4	66.2-120		%REC	184616	1	12/09/2013 15:31	NP
Surr: Dibromofluoromethane	102	79.5-121		%REC	184616	1	12/09/2013 15:31	NP
Surr: Toluene-d8	102	77-117		%REC	184616	1	12/09/2013 15:31	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 10:33	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 10:33	SH
Methane	78	4		ug/L	184674	1	12/11/2013 10:33	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-4
Project Name:	Swainsboro GA	**Collection Date:**	12/3/2013 3:11:00 PM
Lab ID:	1312500-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:56	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:56	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:56	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:56	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:56	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 15:56	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 15:56	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:56	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:56	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 15:56	NP
Vinyl chloride	36	2.0		ug/L	184616	1	12/09/2013 15:56	NP
Surr: 4-Bromofluorobenzene	82.3	66.2-120		%REC	184616	1	12/09/2013 15:56	NP
Surr: Dibromofluoromethane	105	79.5-121		%REC	184616	1	12/09/2013 15:56	NP
Surr: Toluene-d8	102	77-117		%REC	184616	1	12/09/2013 15:56	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 10:49	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 10:49	SH
Methane	6200	400		ug/L	184674	100	12/11/2013 11:05	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	TRIPBLANK-1
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 12:15:00 PM
Lab ID:	1312500-006	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:26	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:26	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:26	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:26	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 11:26	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:26	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 11:26	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 11:26	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 11:26	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 11:26	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 11:26	NP
Surr: 4-Bromofluorobenzene	88.3	66.2-120		%REC	184616	1	12/09/2013 11:26	NP
Surr: Dibromofluoromethane	102	79.5-121		%REC	184616	1	12/09/2013 11:26	NP
Surr: Toluene-d8	99.4	77-117		%REC	184616	1	12/09/2013 11:26	NP

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-21
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 9:45:00 AM
Lab ID:	1312500-007	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:21	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:21	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:21	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:21	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 16:21	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:21	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 16:21	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 16:21	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 16:21	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 16:21	NP
Vinyl chloride	8.2	2.0		ug/L	184616	1	12/09/2013 16:21	NP
Surr: 4-Bromofluorobenzene	84.3	66.2-120		%REC	184616	1	12/09/2013 16:21	NP
Surr: Dibromofluoromethane	105	79.5-121		%REC	184616	1	12/09/2013 16:21	NP
Surr: Toluene-d8	101	77-117		%REC	184616	1	12/09/2013 16:21	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 10:54	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 10:54	SH
Methane	8400	400		ug/L	184674	100	12/11/2013 11:12	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-19
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 11:21:00 AM
Lab ID:	1312500-008	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 22:31	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 22:31	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 22:31	GK
1,1-Dichloroethane	12	5.0		ug/L	184616	1	12/10/2013 22:31	GK
1,1-Dichloroethene	200	50		ug/L	184616	10	12/09/2013 13:54	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 22:31	GK
Chloroethane	340	100		ug/L	184616	10	12/09/2013 13:54	NP
cis-1,2-Dichloroethene	87	5.0		ug/L	184616	1	12/10/2013 22:31	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 22:31	GK
Trichloroethene	280	50		ug/L	184616	10	12/09/2013 13:54	NP
Vinyl chloride	300	20		ug/L	184616	10	12/09/2013 13:54	NP
Surr: 4-Bromofluorobenzene	84.8	66.2-120		%REC	184616	10	12/09/2013 13:54	NP
Surr: 4-Bromofluorobenzene	91.8	66.2-120		%REC	184616	1	12/10/2013 22:31	GK
Surr: Dibromofluoromethane	95.3	79.5-121		%REC	184616	1	12/10/2013 22:31	GK
Surr: Dibromofluoromethane	101	79.5-121		%REC	184616	10	12/09/2013 13:54	NP
Surr: Toluene-d8	93.8	77-117		%REC	184616	1	12/10/2013 22:31	GK
Surr: Toluene-d8	99.6	77-117		%REC	184616	10	12/09/2013 13:54	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	41	9		ug/L	184674	1	12/11/2013 11:01	SH
Ethylene	380	14		ug/L	184674	2	12/11/2013 11:23	SH
Methane	5400	200		ug/L	184674	50	12/11/2013 11:16	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-8
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 1:06:00 PM
Lab ID:	1312500-009	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	740	100		ug/L	184616	20	12/09/2013 12:15	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 20:52	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 20:52	NP
1,1-Dichloroethane	280	100		ug/L	184616	20	12/09/2013 12:15	NP
1,1-Dichloroethene	2100	100		ug/L	184616	20	12/09/2013 12:15	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 20:52	NP
Chloroethane	67	10		ug/L	184616	1	12/09/2013 20:52	NP
cis-1,2-Dichloroethene	2200	100		ug/L	184616	20	12/09/2013 12:15	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 20:52	NP
Trichloroethene	1500	100		ug/L	184616	20	12/09/2013 12:15	NP
Vinyl chloride	2600	40		ug/L	184616	20	12/09/2013 12:15	NP
Surr: 4-Bromofluorobenzene	83.4	66.2-120		%REC	184616	1	12/09/2013 20:52	NP
Surr: 4-Bromofluorobenzene	83.7	66.2-120		%REC	184616	20	12/09/2013 12:15	NP
Surr: Dibromofluoromethane	106	79.5-121		%REC	184616	20	12/09/2013 12:15	NP
Surr: Dibromofluoromethane	124	79.5-121	S	%REC	184616	1	12/09/2013 20:52	NP
Surr: Toluene-d8	100	77-117		%REC	184616	1	12/09/2013 20:52	NP
Surr: Toluene-d8	99.1	77-117		%REC	184616	20	12/09/2013 12:15	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 11:28	SH
Ethylene	49	7		ug/L	184674	1	12/11/2013 11:28	SH
Methane	6800	400		ug/L	184674	100	12/11/2013 11:35	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	DUP-1
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 12:00:00 PM
Lab ID:	1312500-010	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	790	100		ug/L	184616	20	12/09/2013 13:29	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 21:16	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 21:16	NP
1,1-Dichloroethane	280	100		ug/L	184616	20	12/09/2013 13:29	NP
1,1-Dichloroethene	2200	100		ug/L	184616	20	12/09/2013 13:29	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 21:16	NP
Chloroethane	78	10		ug/L	184616	1	12/09/2013 21:16	NP
cis-1,2-Dichloroethene	2200	100		ug/L	184616	20	12/09/2013 13:29	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 21:16	NP
Trichloroethene	1600	100		ug/L	184616	20	12/09/2013 13:29	NP
Vinyl chloride	2600	40		ug/L	184616	20	12/09/2013 13:29	NP
Surr: 4-Bromofluorobenzene	90	66.2-120		%REC	184616	1	12/09/2013 21:16	NP
Surr: 4-Bromofluorobenzene	91.2	66.2-120		%REC	184616	20	12/09/2013 13:29	NP
Surr: Dibromofluoromethane	103	79.5-121		%REC	184616	20	12/09/2013 13:29	NP
Surr: Dibromofluoromethane	124	79.5-121	S	%REC	184616	1	12/09/2013 21:16	NP
Surr: Toluene-d8	102	77-117		%REC	184616	1	12/09/2013 21:16	NP
Surr: Toluene-d8	99.1	77-117		%REC	184616	20	12/09/2013 13:29	NP

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-20D
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 2:46:00 PM
Lab ID:	1312500-011	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:46	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:46	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:46	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:46	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 16:46	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 16:46	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 16:46	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 16:46	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 16:46	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 16:46	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 16:46	NP
Surr: 4-Bromofluorobenzene	85.8	66.2-120		%REC	184616	1	12/09/2013 16:46	NP
Surr: Dibromofluoromethane	106	79.5-121		%REC	184616	1	12/09/2013 16:46	NP
Surr: Toluene-d8	103	77-117		%REC	184616	1	12/09/2013 16:46	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 12:02	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 12:02	SH
Methane	BRL	4		ug/L	184674	1	12/11/2013 12:02	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-11
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 3:46:00 PM
Lab ID:	1312500-012	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 17:11	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 17:11	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 17:11	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 17:11	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 17:11	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 17:11	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 17:11	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 17:11	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 17:11	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 17:11	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 17:11	NP
Surr: 4-Bromofluorobenzene	81.4	66.2-120		%REC	184616	1	12/09/2013 17:11	NP
Surr: Dibromofluoromethane	103	79.5-121		%REC	184616	1	12/09/2013 17:11	NP
Surr: Toluene-d8	101	77-117		%REC	184616	1	12/09/2013 17:11	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 12:33	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 12:33	SH
Methane	110	4		ug/L	184674	1	12/11/2013 12:33	SH

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: 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-6
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 10:45:00 AM
Lab ID:	1312500-013	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 20:35	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 20:35	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 20:35	GK
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 20:35	GK
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 20:35	GK
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 20:35	GK
Chloroethane	BRL	10		ug/L	184616	1	12/10/2013 20:35	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 20:35	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 20:35	GK
Trichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 20:35	GK
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/10/2013 20:35	GK
Surr: 4-Bromofluorobenzene	89.4	66.2-120		%REC	184616	1	12/10/2013 20:35	GK
Surr: Dibromofluoromethane	94.1	79.5-121		%REC	184616	1	12/10/2013 20:35	GK
Surr: Toluene-d8	94.1	77-117		%REC	184616	1	12/10/2013 20:35	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 12:41	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 12:41	SH
Methane	3500	200		ug/L	184674	50	12/11/2013 12:48	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-7
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 12:40:00 PM
Lab ID:	1312500-014	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:04	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:04	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:04	GK
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:04	GK
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 21:04	GK
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:04	GK
Chloroethane	BRL	10		ug/L	184616	1	12/10/2013 21:04	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 21:04	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 21:04	GK
Trichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 21:04	GK
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/10/2013 21:04	GK
Surr: 4-Bromofluorobenzene	90	66.2-120		%REC	184616	1	12/10/2013 21:04	GK
Surr: Dibromofluoromethane	94.6	79.5-121		%REC	184616	1	12/10/2013 21:04	GK
Surr: Toluene-d8	94.9	77-117		%REC	184616	1	12/10/2013 21:04	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 12:53	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 12:53	SH
Methane	950	40		ug/L	184674	10	12/11/2013 13:04	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-20
Project Name:	Swainsboro GA	**Collection Date:**	12/4/2013 3:40:00 PM
Lab ID:	1312500-015	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:33	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:33	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:33	GK
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:33	GK
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 21:33	GK
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 21:33	GK
Chloroethane	BRL	10		ug/L	184616	1	12/10/2013 21:33	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 21:33	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 21:33	GK
Trichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 21:33	GK
Vinyl chloride	4.6	2.0		ug/L	184616	1	12/10/2013 21:33	GK
Surr: 4-Bromofluorobenzene	91.9	66.2-120		%REC	184616	1	12/10/2013 21:33	GK
Surr: Dibromofluoromethane	93.1	79.5-121		%REC	184616	1	12/10/2013 21:33	GK
Surr: Toluene-d8	94.6	77-117		%REC	184616	1	12/10/2013 21:33	GK
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 12:58	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 12:58	SH
Methane	6100	400		ug/L	184674	100	12/11/2013 13:15	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-18
Project Name:	Swainsboro GA	**Collection Date:**	12/5/2013 11:15:00 AM
Lab ID:	1312500-016	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 18:49	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 18:49	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 18:49	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 18:49	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 18:49	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 18:49	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 18:49	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 18:49	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 18:49	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 18:49	NP
Vinyl chloride	3.8	2.0		ug/L	184616	1	12/09/2013 18:49	NP
Surr: 4-Bromofluorobenzene	84.8	66.2-120		%REC	184616	1	12/09/2013 18:49	NP
Surr: Dibromofluoromethane	104	79.5-121		%REC	184616	1	12/09/2013 18:49	NP
Surr: Toluene-d8	102	77-117		%REC	184616	1	12/09/2013 18:49	NP
GC Analysis of Gaseous Samples SOP-RSK 175				**(RSK175)**				
Ethane	BRL	9		ug/L	184674	1	12/11/2013 13:20	SH
Ethylene	BRL	7		ug/L	184674	1	12/11/2013 13:20	SH
Methane	6900	400		ug/L	184674	100	12/11/2013 13:27	SH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	EB-1
Project Name:	Swainsboro GA	**Collection Date:**	12/5/2013 11:00:00 AM
Lab ID:	1312500-017	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:50	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:50	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:50	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:50	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 11:50	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 11:50	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 11:50	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 11:50	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 11:50	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 11:50	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 11:50	NP
Surr: 4-Bromofluorobenzene	85.3	66.2-120		%REC	184616	1	12/09/2013 11:50	NP
Surr: Dibromofluoromethane	102	79.5-121		%REC	184616	1	12/09/2013 11:50	NP
Surr: Toluene-d8	101	77-117		%REC	184616	1	12/09/2013 11:50	NP

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SW-2
Project Name:	Swainsboro GA	**Collection Date:**	12/5/2013 11:45:00 AM
Lab ID:	1312500-018	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 22:02	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 22:02	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 22:02	GK
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 22:02	GK
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 22:02	GK
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/10/2013 22:02	GK
Chloroethane	BRL	10		ug/L	184616	1	12/10/2013 22:02	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 22:02	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 22:02	GK
Trichloroethene	BRL	5.0		ug/L	184616	1	12/10/2013 22:02	GK
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/10/2013 22:02	GK
Surr: 4-Bromofluorobenzene	90.6	66.2-120		%REC	184616	1	12/10/2013 22:02	GK
Surr: Dibromofluoromethane	94.1	79.5-121		%REC	184616	1	12/10/2013 22:02	GK
Surr: Toluene-d8	95.2	77-117		%REC	184616	1	12/10/2013 22:02	GK

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SW-4
Project Name:	Swainsboro GA	**Collection Date:**	12/5/2013 12:00:00 PM
Lab ID:	1312500-019	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 19:38	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 19:38	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 19:38	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 19:38	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 19:38	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 19:38	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 19:38	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 19:38	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 19:38	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 19:38	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 19:38	NP
Surr: 4-Bromofluorobenzene	80.6	66.2-120		%REC	184616	1	12/09/2013 19:38	NP
Surr: Dibromofluoromethane	107	79.5-121		%REC	184616	1	12/09/2013 19:38	NP
Surr: Toluene-d8	101	77-117		%REC	184616	1	12/09/2013 19:38	NP

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SW-5
Project Name:	Swainsboro GA	**Collection Date:**	12/5/2013 12:15:00 PM
Lab ID:	1312500-020	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 20:03	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 20:03	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 20:03	NP
1,1-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 20:03	NP
1,1-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 20:03	NP
1,2-Dichloroethane	BRL	5.0		ug/L	184616	1	12/09/2013 20:03	NP
Chloroethane	BRL	10		ug/L	184616	1	12/09/2013 20:03	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 20:03	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 20:03	NP
Trichloroethene	BRL	5.0		ug/L	184616	1	12/09/2013 20:03	NP
Vinyl chloride	BRL	2.0		ug/L	184616	1	12/09/2013 20:03	NP
Surr: 4-Bromofluorobenzene	78.9	66.2-120		%REC	184616	1	12/09/2013 20:03	NP
Surr: Dibromofluoromethane	105	79.5-121		%REC	184616	1	12/09/2013 20:03	NP
Surr: Toluene-d8	102	77-117		%REC	184616	1	12/09/2013 20:03	NP

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	SW-6
Project Name:	Swainsboro GA	**Collection Date:**	12/5/2013 12:30:00 PM
Lab ID:	1312500-021	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	184601	1	12/09/2013 11:21	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	184601	1	12/09/2013 11:21	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	184601	1	12/09/2013 11:21	GK
1,1-Dichloroethane	BRL	5.0		ug/L	184601	1	12/09/2013 11:21	GK
1,1-Dichloroethene	BRL	5.0		ug/L	184601	1	12/09/2013 11:21	GK
1,2-Dichloroethane	BRL	5.0		ug/L	184601	1	12/09/2013 11:21	GK
Chloroethane	BRL	10		ug/L	184601	1	12/09/2013 11:21	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	184601	1	12/09/2013 11:21	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	184601	1	12/09/2013 11:21	GK
Trichloroethene	BRL	5.0		ug/L	184601	1	12/09/2013 11:21	GK
Vinyl chloride	BRL	2.0		ug/L	184601	1	12/09/2013 11:21	GK
Surr: 4-Bromofluorobenzene	92.9	66.2-120		%REC	184601	1	12/09/2013 11:21	GK
Surr: Dibromofluoromethane	97.6	79.5-121		%REC	184601	1	12/09/2013 11:21	GK
Surr: Toluene-d8	96.6	77-117		%REC	184601	1	12/09/2013 11:21	GK

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 Mactec Work Order Number 1312500

Checklist completed by [signature] 12/17/13
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? (4°C±2)*	Yes ✓	No __	

Cooler #1 3.2°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

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

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

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

See Case Narrative for resolution of the Non-Conformance.

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

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Analytical Environmental Services, Inc

Date: 13-Dec-13

Client: AMEC E&I, Inc.
Project: Swainsboro GA
Lab Order: 1312500

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1312500-001A	MW-12	12/3/2013 11:40:00AM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-001B	MW-12	12/3/2013 11:40:00AM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-002A	MW-15	12/3/2013 1:25:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-002B	MW-15	12/3/2013 1:25:00PM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-003A	MW-9R	12/3/2013 3:40:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-003B	MW-9R	12/3/2013 3:40:00PM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-004A	MW-5	12/3/2013 12:56:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-004B	MW-5	12/3/2013 12:56:00PM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-005A	MW-4	12/3/2013 3:11:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-005B	MW-4	12/3/2013 3:11:00PM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-006A	TRIPBLANK-1	12/4/2013 12:15:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-007A	MW-21	12/4/2013 9:45:00AM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-007B	MW-21	12/4/2013 9:45:00AM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-008A	MW-19	12/4/2013 11:21:00AM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-008A	MW-19	12/4/2013 11:21:00AM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/10/2013
1312500-008B	MW-19	12/4/2013 11:21:00AM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-009A	MW-8	12/4/2013 1:06:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-009B	MW-8	12/4/2013 1:06:00PM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-010A	DUP-1	12/4/2013 12:00:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-011A	MW-20D	12/4/2013 2:46:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-011B	MW-20D	12/4/2013 2:46:00PM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-012A	MW-11	12/4/2013 3:46:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-012B	MW-11	12/4/2013 3:46:00PM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-013A	MW-6	12/4/2013 10:45:00AM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/10/2013
1312500-013B	MW-6	12/4/2013 10:45:00AM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-014A	MW-7	12/4/2013 12:40:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/10/2013
1312500-014B	MW-7	12/4/2013 12:40:00PM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-015A	MW-20	12/4/2013 3:40:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/10/2013
1312500-015B	MW-20	12/4/2013 3:40:00PM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013

Analytical Environmental Services, Inc

Date: 13-Dec-13

Client: AMEC E&I, Inc.
Project: Swainsboro GA
Lab Order: 1312500

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1312500-016A	MW-18	12/5/2013 11:15:00AM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-016B	MW-18	12/5/2013 11:15:00AM	Groundwater	GC Analysis of Gaseous Samples		12/11/2013	12/11/2013
1312500-017A	EB-1	12/5/2013 11:00:00AM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-018A	SW-2	12/5/2013 11:45:00AM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/10/2013
1312500-019A	SW-4	12/5/2013 12:00:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-020A	SW-5	12/5/2013 12:15:00PM	Groundwater	TCL VOLATILE ORGANICS		12/09/2013	12/09/2013
1312500-021A	SW-6	12/5/2013 12:30:00PM	Groundwater	TCL VOLATILE ORGANICS		12/07/2013	12/09/2013

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312500

ANALYTICAL QC SUMMARY REPORT

BatchID: **184601**

Sample ID: **MB-184601** Client ID: Units: **ug/L** Prep Date: **12/07/2013** Run No: **257270**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **184601** Analysis Date: **12/07/2013** Seq No: **5405211**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Chloroethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	46.40	0	50.00		92.8	66.2	120				
Surr: Dibromofluoromethane	48.06	0	50.00		96.1	79.5	121				
Surr: Toluene-d8	48.05	0	50.00		96.1	77	117				

Sample ID: **LCS-184601** Client ID: Units: **ug/L** Prep Date: **12/07/2013** Run No: **257270**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **184601** Analysis Date: **12/07/2013** Seq No: **5405210**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	51.38	5.0	50.00		103	63.1	140				
Trichloroethene	60.03	5.0	50.00		120	71.2	135				
Surr: 4-Bromofluorobenzene	47.37	0	50.00		94.7	66.2	120				
Surr: Dibromofluoromethane	48.93	0	50.00		97.9	79.5	121				
Surr: Toluene-d8	47.53	0	50.00		95.1	77	117				

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312500

ANALYTICAL QC SUMMARY REPORT

BatchID: **184601**

Sample ID: **1312370-006AMS** Client ID: Units: **ug/L** Prep Date: **12/07/2013** Run No: **257270**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **184601** Analysis Date: **12/07/2013** Seq No: **5405213**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	4983	500	5000	193.0	95.8	60.2	159				
Trichloroethene	5672	500	5000		113	70.1	144				
Surr: 4-Bromofluorobenzene	4764	0	5000		95.3	66.2	120				
Surr: Dibromofluoromethane	4935	0	5000		98.7	79.5	121				
Surr: Toluene-d8	4844	0	5000		96.9	77	117				

Sample ID: **1312370-006AMSD** Client ID: Units: **ug/L** Prep Date: **12/07/2013** Run No: **257270**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **184601** Analysis Date: **12/07/2013** Seq No: **5405214**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	5027	500	5000	193.0	96.7	60.2	159	4983	0.879	19.2	
Trichloroethene	5537	500	5000		111	70.1	144	5672	2.41	20	
Surr: 4-Bromofluorobenzene	4819	0	5000		96.4	66.2	120	4764	0	0	
Surr: Dibromofluoromethane	4863	0	5000		97.3	79.5	121	4935	0	0	
Surr: Toluene-d8	4815	0	5000		96.3	77	117	4844	0	0	

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312500

ANALYTICAL QC SUMMARY REPORT

BatchID: 184616

Sample ID: **MB-184616** Client ID: Units: **ug/L** Prep Date: **12/09/2013** Run No: **257287**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **184616** Analysis Date: **12/09/2013** Seq No: **5405646**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
Chloroethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
Trichloroethene	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	43.49	0	50.00		87.0	66.2	120				
Surr: Dibromofluoromethane	50.30	0	50.00		101	79.5	121				
Surr: Toluene-d8	51.83	0	50.00		104	77	117				

Sample ID: **LCS-184616** Client ID: Units: **ug/L** Prep Date: **12/09/2013** Run No: **257287**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **184616** Analysis Date: **12/09/2013** Seq No: **5405308**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	55.45	5.0	50.00		111	63.1	140				
Trichloroethene	55.15	5.0	50.00		110	71.2	135				
Surr: 4-Bromofluorobenzene	51.21	0	50.00		102	66.2	120				
Surr: Dibromofluoromethane	51.34	0	50.00		103	79.5	121				
Surr: Toluene-d8	53.23	0	50.00		106	77	117				

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312500

ANALYTICAL QC SUMMARY REPORT

BatchID: 184616

Sample ID: **1312500-009AMS** Client ID: **MW-8** Units: **ug/L** Prep Date: **12/09/2013** Run No: **257287**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **184616** Analysis Date: **12/09/2013** Seq No: **5405791**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	3399	100	1000	2096	130	60.2	159				
Trichloroethene	2825	100	1000	1456	137	70.1	144				
Surr: 4-Bromofluorobenzene	1061	0	1000		106	66.2	120				
Surr: Dibromofluoromethane	1081	0	1000		108	79.5	121				
Surr: Toluene-d8	1100	0	1000		110	77	117				

Sample ID: **1312500-009AMSD** Client ID: **MW-8** Units: **ug/L** Prep Date: **12/09/2013** Run No: **257287**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **184616** Analysis Date: **12/09/2013** Seq No: **5405792**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	3259	100	1000	2096	116	60.2	159	3399	4.21	19.2	
Trichloroethene	2675	100	1000	1456	122	70.1	144	2825	5.45	20	
Surr: 4-Bromofluorobenzene	1042	0	1000		104	66.2	120	1061	0	0	
Surr: Dibromofluoromethane	1038	0	1000		104	79.5	121	1081	0	0	
Surr: Toluene-d8	1071	0	1000		107	77	117	1100	0	0	

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312500

ANALYTICAL QC SUMMARY REPORT

BatchID: 184674

Sample ID: **MB-184674** Client ID: Units: **ug/L** Prep Date: **12/11/2013** Run No: **257457**
SampleType: **MBLK** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **184674** Analysis Date: **12/11/2013** Seq No: **5409094**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	BRL	9									
Ethylene	BRL	7									
Methane	BRL	4									

Sample ID: **LCS-184674** Client ID: Units: **ug/L** Prep Date: **12/11/2013** Run No: **257457**
SampleType: **LCS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **184674** Analysis Date: **12/11/2013** Seq No: **5409095**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	107.2	9	200.0		53.6	41.6	115				
Ethylene	70.96	7	200.0		35.5	26.9	115				
Methane	117.7	4	200.0		58.8	45.2	115				

Sample ID: **LCSD-184674** Client ID: Units: **ug/L** Prep Date: **12/11/2013** Run No: **257457**
SampleType: **LCSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **184674** Analysis Date: **12/11/2013** Seq No: **5409096**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	106.1	9	200.0		53.1	41.6	115	107.2	1.03	20	
Ethylene	70.23	7	200.0		35.1	26.9	115	70.96	1.03	20	
Methane	115.1	4	200.0		57.5	45.2	115	117.7	2.23	20	

Sample ID: **1312500-011BMS** Client ID: **MW-20D** Units: **ug/L** Prep Date: **12/11/2013** Run No: **257457**
SampleType: **MS** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **184674** Analysis Date: **12/11/2013** Seq No: **5409313**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	104.1	9	200.0		52.0	40.1	115				
Ethylene	68.96	7	200.0		34.5	24.5	115				
Methane	110.4	4	200.0		55.2	41.1	115				

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312500

ANALYTICAL QC SUMMARY REPORT

BatchID: **184674**

Sample ID: **1312500-011BMSD** Client ID: **MW-20D** Units: **ug/L** Prep Date: **12/11/2013** Run No: **257457**
SampleType: **MSD** TestCode: **GC Analysis of Gaseous Samples SOP-RSK 175** BatchID: **184674** Analysis Date: **12/11/2013** Seq No: **5409317**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethane	105.1	9	200.0		52.6	40.1	115	104.1	1.01	20	
Ethylene	70.16	7	200.0		35.1	24.5	115	68.96	1.72	20	
Methane	112.0	4	200.0		56.0	41.1	115	110.4	1.47	20	

Qualifiers:

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

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

December 13, 2013

Gregory Wrenn
AMEC E&I, Inc.
1075 Big Shanty Road, NW, Suite 100
Kennesaw GA 30144

TEL: (770) 421-3400
FAX: (770) 421-3486

RE: Swainsboro GA

Dear Gregory Wrenn: Order No: 1312499

Analytical Environmental Services, Inc. received 1 samples on 12/5/2013 5:10:00 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 07/01/13-06/30/14.
-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) 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.

Tara Esbeck

Tara Esbeck
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1312499

Date: 12/5/13 Page 1 of 1

COMPANY: AMEC E&I

ADDRESS: 1075 Big Shanty Rd Ste 100 Kennesaw, GA 30144

PHONE: 770-421-3400

FAX: 770-421-3486

SAMPLED BY: Daniel Howard

SIGNATURE: Daniel Howard

ANALYSIS REQUESTED: TPH GRO 8015, TPH DRO 8015, Oil & Grease 1664, SVOC 8270C

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

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TPH GRO	TPH DRO	Oil & Grease	SVOC	REMARKS	No # of Containers
						PRESERVATION (See codes)	H+I	I	S/M+I	I		
1	MW-10	12/5/13	0948	X		GW	2	2	2	2		8
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												

RELINQUISHED BY / DATE/TIME
1: Daniel Howard 12/5/13/1710
2:
3:

RECEIVED BY / DATE/TIME
1: [illegible] 12/5/13 17.10
2:
3:

SPECIAL INSTRUCTIONS/COMMENTS:

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

PROJECT INFORMATION
PROJECT NAME: STI Swainsboro
PROJECT #: 6125080149
SITE ADDRESS: Swainsboro, GA
SEND REPORT TO: Greg Wrenn
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers

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

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

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

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

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 13-Dec-13

Client: AMEC E&I, Inc.
Project: Swainsboro GA
Lab ID: 1312499

Case Narrative

Oil and Grease Analysis by Method 1664

Matrix spike analysis was not performed with Batch [184626 due to insufficient sample volume.

Analytical Environmental Services, Inc

Date: 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-10
Project Name:	Swainsboro GA	**Collection Date:**	12/5/2013 9:48:00 AM
Lab ID:	1312499-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Total Oil and Grease (HEM) E1664A					**(E1664)**			
Oil and Grease	BRL	5.0		mg/L	184626	1	12/10/2013 14:30	JW
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3510C)**			
1,1´-Biphenyl	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	184706	1	12/13/2013 12:05	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2,4-Dichlorophenol	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2,4-Dimethylphenol	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2,4-Dinitrophenol	BRL	25		ug/L	184706	1	12/13/2013 12:05	YH
2,4-Dinitrotoluene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2,6-Dinitrotoluene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2-Chloronaphthalene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2-Chlorophenol	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2-Methylnaphthalene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2-Methylphenol	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
2-Nitroaniline	BRL	25		ug/L	184706	1	12/13/2013 12:05	YH
2-Nitrophenol	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
3,3´-Dichlorobenzidine	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
3-Nitroaniline	BRL	25		ug/L	184706	1	12/13/2013 12:05	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	184706	1	12/13/2013 12:05	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
4-Chloroaniline	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
4-Methylphenol	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
4-Nitroaniline	BRL	25		ug/L	184706	1	12/13/2013 12:05	YH
4-Nitrophenol	BRL	25		ug/L	184706	1	12/13/2013 12:05	YH
Acenaphthene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Acenaphthylene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Acetophenone	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Anthracene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Atrazine	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Benz(a)anthracene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Benzaldehyde	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Benzo(a)pyrene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Benzo(b)fluoranthene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Benzo(k)fluoranthene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH

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:** 13-Dec-13

Client:	AMEC E&I, Inc.	**Client Sample ID:**	MW-10
Project Name:	Swainsboro GA	**Collection Date:**	12/5/2013 9:48:00 AM
Lab ID:	1312499-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3510C)**				
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Butyl benzyl phthalate	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Caprolactam	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Carbazole	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Chrysene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Di-n-butyl phthalate	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Di-n-octyl phthalate	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Dibenzofuran	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Diethyl phthalate	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Dimethyl phthalate	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Fluoranthene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Fluorene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Hexachlorobenzene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Hexachlorobutadiene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Hexachloroethane	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Isophorone	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Naphthalene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Nitrobenzene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Pentachlorophenol	BRL	25		ug/L	184706	1	12/13/2013 12:05	YH
Phenanthrene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Phenol	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Pyrene	BRL	10		ug/L	184706	1	12/13/2013 12:05	YH
Surr: 2,4,6-Tribromophenol	96.9	51.5-124		%REC	184706	1	12/13/2013 12:05	YH
Surr: 2-Fluorobiphenyl	79	51.7-118		%REC	184706	1	12/13/2013 12:05	YH
Surr: 2-Fluorophenol	54.3	26-120		%REC	184706	1	12/13/2013 12:05	YH
Surr: 4-Terphenyl-d14	92.2	45.2-137		%REC	184706	1	12/13/2013 12:05	YH
Surr: Nitrobenzene-d5	65.7	42-120		%REC	184706	1	12/13/2013 12:05	YH
Surr: Phenol-d5	34	12.3-120		%REC	184706	1	12/13/2013 12:05	YH
GASOLINE RANGE ORGANICS SW8015C				**(SW5030B)**				
TPH (Gasoline Range Organics)	BRL	0.50		mg/L	184750	1	12/11/2013 13:40	JE
Surr: a.a.a-trifluorotoluene	86.6	71-118		%REC	184750	1	12/11/2013 13:40	JE
DIESEL RANGE ORGANICS SW8015C				**(SW3510C)**				
Diesel Range Organics	0.31	0.20		mg/L	184627	1	12/11/2013 16:28	SH
Surr: Dioctylphthalate	54.8	43.6-128		%REC	184627	1	12/11/2013 16:28	SH

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 Amec Work Order Number 1312499

Checklist completed by [signature] 12/7/13
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? (4°C±2)* Yes ✓ No __

Cooler #1 3.2 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 SB

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.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312499

ANALYTICAL QC SUMMARY REPORT

BatchID: 184626

Sample ID: **MB-184626** Client ID: Units: **mg/L** Prep Date: **12/10/2013** Run No: **257405**
SampleType: **MBLK** TestCode: **Total Oil and Grease (HEM) E1664A** BatchID: **184626** Analysis Date: **12/10/2013** Seq No: **5407844**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Oil and Grease	BRL	5.0									

Sample ID: **LCS-184626** Client ID: Units: **mg/L** Prep Date: **12/10/2013** Run No: **257405**
SampleType: **LCS** TestCode: **Total Oil and Grease (HEM) E1664A** BatchID: **184626** Analysis Date: **12/10/2013** Seq No: **5407865**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Oil and Grease	33.90	5.0	40.00		84.8	78	114				

Sample ID: **LCSD-184626** Client ID: Units: **mg/L** Prep Date: **12/10/2013** Run No: **257405**
SampleType: **LCSD** TestCode: **Total Oil and Grease (HEM) E1664A** BatchID: **184626** Analysis Date: **12/10/2013** Seq No: **5407866**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Oil and Grease	33.50	5.0	40.00		83.8	78	114	33.90	1.19	18	

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312499

ANALYTICAL QC SUMMARY REPORT

BatchID: 184627

Sample ID: **MB-184627** Client ID: Units: **mg/L** Prep Date: **12/10/2013** Run No: **257508**
SampleType: **MBLK** TestCode: **DIESEL RANGE ORGANICS SW8015C** BatchID: **184627** Analysis Date: **12/11/2013** Seq No: **5410162**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Diesel Range Organics	BRL	0.20									
Surr: Dioctylphthalate	0.06827	0	0.1000		68.3	43.6	128				

Sample ID: **LCS-184627** Client ID: Units: **mg/L** Prep Date: **12/10/2013** Run No: **257508**
SampleType: **LCS** TestCode: **DIESEL RANGE ORGANICS SW8015C** BatchID: **184627** Analysis Date: **12/11/2013** Seq No: **5410848**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Diesel Range Organics	0.8894	0.20	1.000		88.9	55.7	117				
Surr: Dioctylphthalate	0.08759	0	0.1000		87.6	43.6	128				

Sample ID: **1312499-001BMS** Client ID: **MW-10** Units: **mg/L** Prep Date: **12/10/2013** Run No: **257508**
SampleType: **MS** TestCode: **DIESEL RANGE ORGANICS SW8015C** BatchID: **184627** Analysis Date: **12/11/2013** Seq No: **5411174**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Diesel Range Organics	0.7797	0.20	1.000	0.3059	47.4	39.9	120				
Surr: Dioctylphthalate	0.05602	0	0.1000		56.0	43.6	128				

Sample ID: **1312499-001BMSD** Client ID: **MW-10** Units: **mg/L** Prep Date: **12/10/2013** Run No: **257508**
SampleType: **MSD** TestCode: **DIESEL RANGE ORGANICS SW8015C** BatchID: **184627** Analysis Date: **12/11/2013** Seq No: **5411176**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Diesel Range Organics	0.9832	0.20	1.000	0.3059	67.7	39.9	120	0.7797	23.1	35.1	
Surr: Dioctylphthalate	0.07151	0	0.1000		71.5	43.6	128	0.05602	0	0	

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312499

ANALYTICAL QC SUMMARY REPORT

BatchID: 184706

Sample ID: **MB-184706** Client ID: Units: **ug/L** Prep Date: **12/11/2013** Run No: **257693**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **184706** Analysis Date: **12/13/2013** Seq No: **5414207**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1´-Biphenyl	BRL	10									
2,4,5-Trichlorophenol	BRL	25									
2,4,6-Trichlorophenol	BRL	10									
2,4-Dichlorophenol	BRL	10									
2,4-Dimethylphenol	BRL	10									
2,4-Dinitrophenol	BRL	25									
2,4-Dinitrotoluene	BRL	10									
2,6-Dinitrotoluene	BRL	10									
2-Chloronaphthalene	BRL	10									
2-Chlorophenol	BRL	10									
2-Methylnaphthalene	BRL	10									
2-Methylphenol	BRL	10									
2-Nitroaniline	BRL	25									
2-Nitrophenol	BRL	10									
3,3´-Dichlorobenzidine	BRL	10									
3-Nitroaniline	BRL	25									
4,6-Dinitro-2-methylphenol	BRL	25									
4-Bromophenyl phenyl ether	BRL	10									
4-Chloro-3-methylphenol	BRL	10									
4-Chloroaniline	BRL	10									
4-Chlorophenyl phenyl ether	BRL	10									
4-Methylphenol	BRL	10									
4-Nitroaniline	BRL	25									
4-Nitrophenol	BRL	25									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Acetophenone	BRL	10									

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312499

ANALYTICAL QC SUMMARY REPORT

BatchID: 184706

Sample ID: **MB-184706** Client ID: Units: **ug/L** Prep Date: **12/11/2013** Run No: **257693**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **184706** Analysis Date: **12/13/2013** Seq No: **5414207**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	BRL	10									
Atrazine	BRL	10									
Benz(a)anthracene	BRL	10									
Benzaldehyde	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Bis(2-chloroethoxy)methane	BRL	10									
Bis(2-chloroethyl)ether	BRL	10									
Bis(2-chloroisopropyl)ether	BRL	10									
Bis(2-ethylhexyl)phthalate	BRL	10									
Butyl benzyl phthalate	BRL	10									
Caprolactam	BRL	10									
Carbazole	BRL	10									
Chrysene	BRL	10									
Di-n-butyl phthalate	BRL	10									
Di-n-octyl phthalate	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Dibenzofuran	BRL	10									
Diethyl phthalate	BRL	10									
Dimethyl phthalate	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Hexachlorobenzene	BRL	10									
Hexachlorobutadiene	BRL	10									
Hexachlorocyclopentadiene	BRL	10									

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312499

ANALYTICAL QC SUMMARY REPORT

BatchID: 184706

Sample ID: **MB-184706** Client ID: Units: **ug/L** Prep Date: **12/11/2013** Run No: **257693**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **184706** Analysis Date: **12/13/2013** Seq No: **5414207**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Hexachloroethane	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Isophorone	BRL	10									
N-Nitrosodi-n-propylamine	BRL	10									
N-Nitrosodiphenylamine	BRL	10									
Naphthalene	BRL	10									
Nitrobenzene	BRL	10									
Pentachlorophenol	BRL	25									
Phenanthrene	BRL	10									
Phenol	BRL	10									
Pyrene	BRL	10									
Surr: 2,4,6-Tribromophenol	101.8	0	100.0		102	51.5	124				
Surr: 2-Fluorobiphenyl	41.72	0	50.00		83.4	51.7	118				
Surr: 2-Fluorophenol	54.72	0	100.0		54.7	26	120				
Surr: 4-Terphenyl-d14	51.01	0	50.00		102	45.2	137				
Surr: Nitrobenzene-d5	38.61	0	50.00		77.2	42	120				
Surr: Phenol-d5	33.75	0	100.0		33.8	12.3	120				

Sample ID: **LCS-184706** Client ID: Units: **ug/L** Prep Date: **12/11/2013** Run No: **257693**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **184706** Analysis Date: **12/13/2013** Seq No: **5414208**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	103.2	10	100.0		103	65.1	121				
2-Chlorophenol	89.65	10	100.0		89.6	60.2	118				
4-Chloro-3-methylphenol	102.5	10	100.0		103	66.1	117				
4-Nitrophenol	41.93	25	100.0		41.9	20.2	120				
Acenaphthene	96.62	10	100.0		96.6	67.7	122				
N-Nitrosodi-n-propylamine	83.86	10	100.0		83.9	61.1	127				

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312499

ANALYTICAL QC SUMMARY REPORT

BatchID: 184706

Sample ID: **LCS-184706** Client ID: Units: **ug/L** Prep Date: **12/11/2013** Run No: **257693**
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **184706** Analysis Date: **12/13/2013** Seq No: **5414208**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Pentachlorophenol	111.9	25	100.0		112	48.6	140				
Phenol	43.87	10	100.0		43.9	24.6	120				
Pyrene	101.2	10	100.0		101	68.3	123				
Surr: 2,4,6-Tribromophenol	121.4	0	100.0		121	51.5	124				
Surr: 2-Fluorobiphenyl	48.74	0	50.00		97.5	51.7	118				
Surr: 2-Fluorophenol	68.64	0	100.0		68.6	26	120				
Surr: 4-Terphenyl-d14	60.20	0	50.00		120	45.2	137				
Surr: Nitrobenzene-d5	43.34	0	50.00		86.7	42	120				
Surr: Phenol-d5	45.56	0	100.0		45.6	12.3	120				

Sample ID: **1312518-002BMS** Client ID: Units: **ug/L** Prep Date: **12/12/2013** Run No: **257693**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **184706** Analysis Date: **12/13/2013** Seq No: **5414214**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	79.32	10	100.0		79.3	50.1	120				
2-Chlorophenol	61.45	10	100.0		61.4	50.4	120				
4-Chloro-3-methylphenol	78.51	10	100.0		78.5	51.1	118				
4-Nitrophenol	49.53	25	100.0		49.5	20.8	120				
Acenaphthene	75.89	10	100.0		75.9	51.9	120				
N-Nitrosodi-n-propylamine	61.25	10	100.0		61.2	50	118				
Pentachlorophenol	92.13	25	100.0		92.1	40.7	139				
Phenol	43.50	10	100.0		43.5	30.5	120				
Pyrene	74.74	10	100.0		74.7	50.6	120				
Surr: 2,4,6-Tribromophenol	101.6	0	100.0		102	51.5	124				
Surr: 2-Fluorobiphenyl	42.07	0	50.00		84.1	51.7	118				
Surr: 2-Fluorophenol	59.44	0	100.0		59.4	26	120				
Surr: 4-Terphenyl-d14	48.97	0	50.00		97.9	45.2	137				
Surr: Nitrobenzene-d5	35.28	0	50.00		70.6	42	120				

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312499

ANALYTICAL QC SUMMARY REPORT

BatchID: 184706

Sample ID: **1312518-002BMS** Client ID: Units: **ug/L** Prep Date: **12/12/2013** Run No: **257693**
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **184706** Analysis Date: **12/13/2013** Seq No: **5414214**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Phenol-d5	49.83	0	100.0		49.8	12.3	120				

Sample ID: **1312518-002BMSD** Client ID: Units: **ug/L** Prep Date: **12/12/2013** Run No: **257693**
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **184706** Analysis Date: **12/13/2013** Seq No: **5414215**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	84.65	10	100.0		84.6	50.1	120	79.32	6.50	27.3	
2-Chlorophenol	74.29	10	100.0		74.3	50.4	120	61.45	18.9	26.1	
4-Chloro-3-methylphenol	85.73	10	100.0		85.7	51.1	118	78.51	8.79	25.8	
4-Nitrophenol	50.71	25	100.0		50.7	20.8	120	49.53	2.35	53.6	
Acenaphthene	81.79	10	100.0		81.8	51.9	120	75.89	7.48	24.9	
N-Nitrosodi-n-propylamine	69.90	10	100.0		69.9	50	118	61.25	13.2	30.7	
Pentachlorophenol	100.2	25	100.0		100	40.7	139	92.13	8.38	28.1	
Phenol	49.83	10	100.0		49.8	30.5	120	43.50	13.6	34.4	
Pyrene	81.25	10	100.0		81.2	50.6	120	74.74	8.35	26.7	
Surr: 2,4,6-Tribromophenol	105.1	0	100.0		105	51.5	124	101.6	0	0	
Surr: 2-Fluorobiphenyl	45.15	0	50.00		90.3	51.7	118	42.07	0	0	
Surr: 2-Fluorophenol	72.14	0	100.0		72.1	26	120	59.44	0	0	
Surr: 4-Terphenyl-d14	51.09	0	50.00		102	45.2	137	48.97	0	0	
Surr: Nitrobenzene-d5	39.19	0	50.00		78.4	42	120	35.28	0	0	
Surr: Phenol-d5	56.71	0	100.0		56.7	12.3	120	49.83	0	0	

Qualifiers:

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

Client: AMEC E&I, Inc.
Project Name: Swainsboro GA
Workorder: 1312499

ANALYTICAL QC SUMMARY REPORT

BatchID: 184750

Sample ID: **MB-184750** Client ID: Units: **mg/L** Prep Date: **12/11/2013** Run No: **257502**
SampleType: **MBLK** TestCode: **GASOLINE RANGE ORGANICS SW8015C** BatchID: **184750** Analysis Date: **12/11/2013** Seq No: **5410043**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	BRL	0.50									
Surr: a.a.a-trifluorotoluene	0.04243	0	0.0500		84.9	71	118				

Sample ID: **LCS-184750** Client ID: Units: **mg/L** Prep Date: **12/11/2013** Run No: **257502**
SampleType: **LCS** TestCode: **GASOLINE RANGE ORGANICS SW8015C** BatchID: **184750** Analysis Date: **12/11/2013** Seq No: **5410040**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	1.102	0.50	1.000		110	68.1	120				
Surr: a.a.a-trifluorotoluene	0.04672	0	0.0500		93.4	71	118				

Sample ID: **1312828-002AMS** Client ID: Units: **mg/L** Prep Date: **12/11/2013** Run No: **257502**
SampleType: **MS** TestCode: **GASOLINE RANGE ORGANICS SW8015C** BatchID: **184750** Analysis Date: **12/11/2013** Seq No: **5410051**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	1.163	0.50	1.000		116	56.3	137				
Surr: a.a.a-trifluorotoluene	0.04682	0	0.0500		93.6	71	118				

Sample ID: **1312828-002AMSD** Client ID: Units: **mg/L** Prep Date: **12/11/2013** Run No: **257502**
SampleType: **MSD** TestCode: **GASOLINE RANGE ORGANICS SW8015C** BatchID: **184750** Analysis Date: **12/11/2013** Seq No: **5410059**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
TPH (Gasoline Range Organics)	1.141	0.50	1.000		114	56.3	137	1.163	1.88	20	
Surr: a.a.a-trifluorotoluene	0.04663	0	0.0500		93.3	71	118	0.04682	0	0	

Qualifiers:

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

APPENDIX B

WELL PURGING/GROUNDWATER SAMPLING LOGS

PROJECT NAME: STI

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 612508014 9.~~1301~~ 302 DH

SAMPLING EVENT:

WELL ID: MW-12
WELL MATERIAL:
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at:
Initial PID =
Bailing PID =

WELL DIAMETER: 2"
DEPTH TO WATER: 4.51 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 6.92
WATER COLUMN HEIGHT: 2.41
PURGE VOLUME: 0.40
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1105	0.25	2.51	22.8	7.26	0.047	18.75	38.6	200 ( )	4.75
1110	0.5	1.89	63.5	5.51	0.037	19.25	24.5		4.75
1115	0.75	1.43	71.8	5.30	0.028	19.26	44.2		4.75
1120	1.0	1.34	75.1	5.25	0.026	19.25	24.7		4.75
1125	1.25	1.38	74.6	5.26	0.027	19.23	18.6		4.75
1130	1.50	1.43	75.2	5.24	0.026	19.21	14.1		4.75
1135	1.75	1.42	75.9	5.23	0.026	19.19	8.4		4.75
1140	Collect Sample								

NOTES:

SAMPLE DATE: 12-3-13
SAMPLE TIME: 1140

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260B	VOC list
4ml vial	2	HCl	RSK175	Gases

GENERAL INFORMATION			
WEATHER:	Cold - Cloudy - Some RAIN		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER: EVER GUILLEN		OBSERVER:	

PROJECT NAME: STI

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.~~1301~~ 1302 DH

SAMPLING EVENT:

WELL ID: MW-15
WELL MATERIAL:
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at:
Initial PID =
Bailing PID =

WELL DIAMETER: 2"
DEPTH TO WATER: 6.72 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 9.81
WATER COLUMN HEIGHT: 3.09
PURGE VOLUME: 0.52
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1230	0.25	0.0	95.8	5.82	0.072	21.56	1241.4	200 ( )	6.87
1235	0.5	0.49	88.7	5.84	0.074	21.66	1086.3		
1240	0.75	0.45	62.5	5.89	0.083	21.69	657.1		
1245	1.0	0.42	58.6	5.89	0.084	21.70	329.6		
1250	1.25	0.38	52.7	5.90	0.086	21.71	186.2		
1255	1.50	0.32	48.2	5.90	0.088	21.71	97.6		
1300	1.75	0.28	43.0	5.91	0.091	21.73	69.5		
1305	2.0	0.27	36.1	5.92	0.098	21.74	29.9		
1310	2.25	0.38	29.4	5.94	0.105	21.76	17.8		
1315	2.5	0.37	21.2	5.95	0.110	21.80	12.9		
1320	2.75	0.42	20.7	5.96	0.110	21.78	7.1		
1325	Collect Sample								

NOTES:

SAMPLE DATE: 12-03-13
SAMPLE TIME: 1325

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260B	VOC list
40ml vial	2	HCl	RSK175	Gases

GENERAL INFORMATION			
WEATHER:	Cold - Cloudy - Some Rain		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER:	Ever Guillen	OBSERVER:	

PROJECT NAME: STI

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.~~1301~~ 1302 DH

SAMPLING EVENT:

WELL ID: MW-9R
WELL MATERIAL:
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at:
Initial PID =
Bailing PID =

WELL DIAMETER: 2"
DEPTH TO WATER: 3.48 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 11.58
WATER COLUMN HEIGHT: 8.10
PURGE VOLUME: 1.37
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

4.11

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1440	0.5	1.21	-12.4	6.36	0.385	21.52	55.2	400 ( )	3.56
1445	1.0	1.11	-18.3	6.36	0.387	21.43	55.9	400	3.64
1450	1.5	0.66	-25.2	6.37	0.386	21.33	107.3	400	3.72
1455	2.0	0.62	-26.5	6.36	0.390	21.00	37.3	400	3.85
1500	2.25	0.51	-26.5	6.37	0.390	20.86	22.9	200	3.85
1505	2.5	0.40	-26.1	6.36	0.394	20.77	19.3		
1510	2.75	0.36	-26.2	6.36	0.397	20.76	66.7		
1515	3.0	0.30	-26.3	6.36	0.397	20.73	53.8		
1520	3.25	0.28	-26.2	6.36	0.397	20.68	44.3		
1525	3.5	0.26	-25.2	6.36	0.399	20.65	23.4		
1530	3.75	0.25	-25.2	6.34	0.401	20.50	13.7		
1535	4.0	0.24	-25.0	6.33	0.402	20.49	9.2		
1540	Collect	Sample							

NOTES:

SAMPLE DATE: 12-3-13
SAMPLE TIME: 1540

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40 ml vial	2	HCl	8260B	VOC list
40 ml vial	2	HCl	RSK175	Gases

GENERAL INFORMATION			
WEATHER:	COLD - CLOUDY - SOME RAIN		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER:	EVER GUILLEN	OBSERVER:	

PROJECT NAME: STI Swainsboro

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.~~1301~~ 1302 DH

SAMPLING EVENT:

WELL ID: MW-5
WELL MATERIAL:
SAMPLE METHOD: peristaltic pump

DUP./REP. OF:

Top of Screened Interval (btoc):
Screen length:
Arrived at: 1130
Initial PID = NA
Bailing PID = NA

WELL DIAMETER: 2"
DEPTH TO WATER: 7.51 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 18.15
WATER COLUMN HEIGHT: 10.64 x 0.163 = 1.7 x 3
PURGE VOLUME: 5.1

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1150	0.1	5.41	212.2	5.21	0.036	21.19	26.7	350 ( )	7.89
1200	1.0	4.89	259.8	5.15	0.035	21.27	13.8	350	8.03
1210	1.75	~~5.23~~ 4.18	257.7	5.02	0.036	21.28	10.3	350	8.10
1220	2.5	4.20	251.0	5.01	0.036	21.27	7.0	375	8.13
1230	3.25	4.08	245.1	5.04	0.037	21.25	5.8	375	8.13
1240	4.0	4.04	237.0	5.02	0.037	21.26	6.1	375	8.13
1245	4.4	3.99	234.0	5.04	0.037	21.28	8.5	375	8.15
1250	4.8	3.99	233.3	5.02	0.037	21.28	9.2	375	8.15
1255	5.1	3.99	233.4	5.01	0.037	21.28	8.6	3.75	8.15

NOTES:

SAMPLE DATE: 12/3/13
SAMPLE TIME: 1256

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260	VOC list
40ml vial	2	HCl	RSK 175	Gases

GENERAL INFORMATION			
WEATHER:	Clear + Sunny Temp 60°F		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER: Daniel Howard		OBSERVER:	

PROJECT NAME: STI Swainsboro

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 612508 0149.~~1301~~ 1302 DH

SAMPLING EVENT:

WELL ID: MW-4
WELL MATERIAL:
SAMPLE METHOD: Peristaltic pump

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at: 1336
Initial PID =
Bailing PID =

WELL DIAMETER: 2"
DEPTH TO WATER: 2.02 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 14.95
WATER COLUMN HEIGHT: 12.93 X 0.163 = 2.1 X 3
PURGE VOLUME: 6.3
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1350	0.1	4.67	-52.2	6.31	0.455	21.92	30.1	400 ( )	3.43
1400	1.0	3.98	-72.5	6.21	0.457	21.80	8.4	300	3.91
1410	1.75	3.89	-71.0	6.20	0.455	21.79	3.9	300	4.11
1420	~~2~~ DH 2.50	3.84	-66.4	6.15	0.455	21.84	0.8	300	4.23
1430	3.25	3.82	-64.4	6.15	0.455	21.93	0.0	300	4.30
1440	4.0	3.80	-62.2	6.15	0.459	21.95	0.0	300	4.36
1450	4.75	3.79	-62.4	6.15	0.461	21.93	0.0	300	4.41
1500	5.5	3.79	-62.5	6.16	0.462	21.92	0.0	300	4.43
1505	5.9	3.78	-62.2	6.18	0.462	21.95	0.0	300	4.50
1510	6.3	3.78	-63.0	6.19	0.463	21.94	0.0	300	4.52

NOTES: Slight sheen on water

SAMPLE DATE: 12/3/13
SAMPLE TIME: 1511

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260	VOC list
40ml vial	2	HCl	RSK 175	Gases

GENERAL INFORMATION			
WEATHER:	Overcast, Temp 65°F		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER: Daniel Howard		OBSERVER:	

PROJECT NAME: STI Swainsboro

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 · KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 612508014 9.1302 ~~1304~~ DH

SAMPLING EVENT:

WELL ID: MW-21
WELL MATERIAL:
SAMPLE METHOD: Peristaltic pump

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at: 0835
Initial PID =
Bailing PID =

WELL DIAMETER: 2"
DEPTH TO WATER: 4.96 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 17.74
WATER COLUMN HEIGHT: 12.78 x 0.163 = 2.1 x 3
PURGE VOLUME: 6.3
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 0840	0.1	5.74	-16.4	6.04	0.472	18.31	21.0	400 ( )	5.02
0850	1.0	4.41	-36.5	6.37	0.475	17.77	29.2	400	5.05
0900	2.0	4.32	-32.2	6.39	0.474	17.66	83.5	400	5.05
0910	3.0	4.23	-28.0	6.37	0.472	17.63	18.6	400	5.05
0920	4.0	4.20	-26.1	6.38	0.468	17.65	18.8	400	5.05
0930	5.0	4.20	-26.7	6.40	0.465	17.56	14.3	400	5.05
0935 ~~0935~~ DH	5.5	4.21	-26.9	6.41	0.464	17.55	8.5	400	5.05
0940	6.0	4.19	-27.3	6.41	0.463	17.57	8.3	400	5.05
0943	6.3	4.18	-27.0	6.42	0.462	17.64	9.0	400	5.05

NOTES:

SAMPLE DATE: 12/4/13
SAMPLE TIME: 0945

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260	VOC list
40ml vial	2	HCl	RSK175	Gases

GENERAL INFORMATION			
WEATHER:	Overcast, Temp 55°F		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER: Daniel Howard		OBSERVER:	

PROJECT NAME: STI Swainsboro

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.1302

SAMPLING EVENT:

WELL ID: MW-19
WELL MATERIAL:
SAMPLE METHOD: Peristaltic pump

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at: 0958
Initial PID = NA
Bailing PID = NA

WELL DIAMETER: 2"
DEPTH TO WATER: 3.45 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 16.66
WATER COLUMN HEIGHT: 13.21 x 0.163 = 2.15
PURGE VOLUME: 6.5
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1015	0.1	5.39	219.7	5.63	0.169	18.83	63.9	400 ( )	4.10
1025	1.0	4.29	62.4	6.06	0.253	18.26	34.9	400	4.05
1035	2.0	4.18	6.7	6.25	0.328	18.32	18.3	400	4.03
1045	3.0	4.13	-13.3	6.30	0.365	18.35	11.2	400	4.01
1055	4.0	4.10	-25.6	6.31	0.381	18.39	9.7	400	4.00
1105	5.0	4.09	-33.0	6.31	0.392	18.40	8.4	400	4.00
1110	5.5	4.09	-35.7	6.31	0.394	18.41	8.1	400	4.00
1115	6.0	4.07	-37.8	6.31	0.396	18.45	9.0	400	3.99
1120	6.5	4.06	-38.8	6.30	0.397	18.42	8.6	400	3.99

NOTES:

SAMPLE DATE: 12/4/13
SAMPLE TIME: 1121

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260	VOC list
40ml vial	2	HCl	RSK175	Gases

GENERAL INFORMATION			
WEATHER:	Overcast, Temp 55°F		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER:	Daniel Howard	OBSERVER:	

PROJECT NAME: STI Swainsboro

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.1302

SAMPLING EVENT:

WELL ID: MW-8
WELL MATERIAL:
SAMPLE METHOD: Peristaltic pump

DUP./REP. OF: DUP-1
Time 1200
Top of Screened interval (btoc):
Screen length:
Arrived at: 1200
Initial PID =
Bailing PID =

WELL DIAMETER: 2"
DEPTH TO WATER: 3.05 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 11.42
WATER COLUMN HEIGHT: 8.37 x 0.163 = 1.4 x 3
PURGE VOLUME: 4.2
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1220	0.1	4.99	-24.6	6.40	0.567	18.96	37.9	350 ( )	3.56
1230	1.0	3.95	-23.8	6.08	0.355	19.80	5.9	350	3.70
1240	1.8	3.95	-24.1	6.08	0.357	19.75	6.5	350	3.70
1250	2.6	3.92	-21.9	6.06	0.331	19.92	6.5	350	3.68
1255	3.4	3.90	-22.1	6.06	0.328	19.93	4.8	350	3.69
1300	3.8	3.89	-23.1	6.04	0.326	19.92	5.4	350	3.70
1305	4.2	3.89	-21.7	6.01	0.311	19.98	5.3	350	3.70

NOTES: DUP-1 was sampled for VOC list only

SAMPLE DATE: 12/4/13
SAMPLE TIME: 1306

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260	VOC list
40ml vial	2	HCl	RSK175	Gases

GENERAL INFORMATION			
WEATHER:	Overcast, Temp 60°F		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER: Daniel Howard		OBSERVER:	

PROJECT NAME: STI Swainsboro

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.1302

SAMPLING EVENT:

WELL ID: MW-20D
WELL MATERIAL:
SAMPLE METHOD: Peristaltic pump

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at: 1338
Initial PID =
Bailing PID =

WELL DIAMETER: 2"
DEPTH TO WATER: 6.65 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 34.65
WATER COLUMN HEIGHT: 28 x 0.163 = 4.6 x 3
PURGE VOLUME: 13.8
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1350	0.1	5.03	245.2	5.00	0.051	20.94	12.5	300 ( )	8.36
1400	0.75	4.04	355.6	5.07	0.051	21.05	10.9	200	12.56
1410	1.25	4.08	370.9	5.06	0.051	20.91	8.7	200	14.13
1420	1.75	4.19	390.1	5.07	0.052	21.03	7.4	200	16.28
1430	2.25	4.74	400.7	5.09	0.051	20.95	9.1	200	18.48
1435	2.50	5.09	402.5	5.08	0.052	20.99	9.0	200	19.27
1440	2.75	5.17	402.3	5.09	0.051	21.01	9.2	200	20.10
1445	3.0	5.27	4.04	5.12	0.051	21.04	9.0	200	21.36

NOTES: Well has very slow recharge. Will pump well until parameters are stable and then sample

SAMPLE DATE: 12/4/13
SAMPLE TIME: 1416

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260	VOC list
40ml vial	2	HCl	RSK 175	Gases

GENERAL INFORMATION			
WEATHER:	Overcast, Temp 65°F		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER: Daniel Howard		OBSERVER:	

PROJECT NAME: STI Swainsboro

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.1302

SAMPLING EVENT:

WELL ID: MW-11
WELL MATERIAL:
SAMPLE METHOD: Peristaltic Pump

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at: 1450
Initial PID = NA
Bailing PID = NA

WELL DIAMETER: 2"
DEPTH TO WATER: 3.79 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 7.90
WATER COLUMN HEIGHT: 4.11 x 0.163 = 0.7 x 3
PURGE VOLUME: DH ~~2.4~~ 2.1

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1505	0.1	6.98	214.0	5.60	0.053	15.69	62.5	300( )	3.90
1515	0.75	5.93	159.1	5.84	0.052	15.17	24.2	200	3.86
1525	1.25	5.26	158.7	5.59	0.054	14.92	12.2	200	3.85
1535	~~1.5~~ 1.75	4.90	161.2	5.51	0.055	14.90	6.8	200	3.85
1540	2.0	4.85	158.4	5.52	0.055	14.85	5.1	200	3.85
1545	2.25	4.75	155.9	5.52	0.056	14.82	3.9	200	3.85

NOTES:

SAMPLE DATE: 12/4/13
SAMPLE TIME: 1546

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260	VOC list
40ml vial	2	HCl	RSK 175	Gases

GENERAL INFORMATION			
WEATHER:	Overcast, Temp 65°F		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER: Daniel Howard		OBSERVER:	

PROJECT NAME: STI

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 612 5080149.1302

SAMPLING EVENT:

WELL ID: MW-6
WELL MATERIAL:
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at:
Initial PID =
Bailing PID =

WELL DIAMETER: 2"
DEPTH TO WATER: 4.72 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 13.15
WATER COLUMN HEIGHT: 8.43
PURGE VOLUME: 1.43
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 920	0.25	0.0	-102.7	6.13	0.338	23.12	1150.7	200 ( )	4.98
925	0.5	0.0	-53.0	5.97	0.164	23.55	1237.6		5.03
935	1.0	0.0	-49.8	5.97	0.163	23.51	939.8		5.07
945	1.5	0.0	-42.6	5.95	0.161	23.38	1231.7		5.11
955	2.0	0.49	-29.8	5.93	0.161	23.16	732.6		5.15
1005	2.5	0.32	-31.4	5.92	0.161	23.16	237.9		5.18
1015	3.0	0.27	-32.0	5.92	0.161	23.17	98.3		5.21
1025	3.5	0.0	-32.7	5.92	0.161	23.18	35.6		5.24
1030	3.75	0.23	-33.1	5.91	0.159	23.18	27.8		5.27
1035	4.0	0.21	-33.6	5.90	0.156	23.18	19.5		5.30
1040	4.25	0.	-33.2	5.90	0.157	23.19	9.2		5.32
1045	Collect Sample								

NOTES:

SAMPLE DATE: 12-4-13
SAMPLE TIME: 1045

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260B	VOC list
40ml vial	2	HCl	RSK175	Gases

GENERAL INFORMATION			
WEATHER:	COLD - Cloudy - Some RAIN		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER: EVER GUILLEN		OBSERVER:	

PROJECT NAME:

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 61250801 49.1302

SAMPLING EVENT:

WELL ID: MW-7
WELL MATERIAL:
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at:
Initial PID =
Bailing PID =

WELL DIAMETER: 2"
DEPTH TO WATER: 3.24 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 9.95
WATER COLUMN HEIGHT: 6.71
PURGE VOLUME: 1.14
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

3.42

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1125	0.25	0.0	108.2	5.47	0.143	17.73	1131.9	200 ( )	4.85
1130	0.5	0.63	107.6	5.41	0.150	17.59	157.6		3.92
1140	1.0	0.42	102.0	5.35	0.158	17.40	153.2		3.98
1150	1.5	0.33	96.5	5.32	0.163	17.36	130.8		4.00
1200	2.0	0.26	85.6	5.27	0.174	17.31	96.0		4.03
1210	2.5	0.24	73.7	5.26	0.184	17.27	107.6		4.06
1215	2.75	0.21	70.3	5.26	0.185	17.27	308.1		4.08
1220	3.0	0.22	61.2	5.27	0.191	17.25	349.5		4.08
1225	3.25	0.23	55.6	5.28	0.194	17.23	491.9		4.07
1230	3.5	0.21	54.8	5.28	0.195	17.21	418.8		4.07
1235	3.75	0.23	52.4	5.28	0.196	17.20	455.9		4.06
1240	Collect Sample								

NOTES: Unable to get Turbidity to Stable - Collected Sample w/High Turbidity

SAMPLE DATE: 12-4-13
SAMPLE TIME: 1240

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260B	VOC list
40ml vial	2	HCl	RSK175	Gases

GENERAL INFORMATION	
WEATHER:	COLD - CLOUDY - Some RAIN
SHIPPED VIA:	
SHIPPED TO:	AES
SAMPLER: EVER GUILLEN	OBSERVER:

PROJECT NAME: STI

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.1302

SAMPLING EVENT:

WELL ID: MW-20
WELL MATERIAL:
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at:
Initial PID =
Bailing PID = 5.82

WELL DIAMETER: 2"
DEPTH TO WATER: 5.08 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 16.50
WATER COLUMN HEIGHT: 11.42
PURGE VOLUME: 1.94
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 1330	0.25	0.0	18.4	5.94	0.292	20.95	659.7	( )	5.34
1335	0.5	0.37	10.7	5.91	0.290	20.76	127.5		5.34
1345	1.0	0.25	5.8	5.81	0.284	20.40	89.6		5.36
1355	1.5	0.23	4.0	5.78	0.282	20.36	83.4		5.37
1405	2.0	0.21	2.9	5.76	0.282	20.36	79.9		5.38
1415	2.5	0.19	0.6	5.75	0.281	20.31	69.2		5.38
1425	3.0	0.15	-4.7	5.71	0.279	20.29	48.5		5.38
1435	3.5	0.14	-7.0	5.71	0.274	20.26	43.5		5.38
1445	4.0	0.12	-13.5	5.73	0.276	20.36	24.5		5.38
1455	4.5	0.12	-18.4	5.80	0.276	20.38	19.5		5.38
1505	5.0	0.11	-17.4	5.74	0.277	20.34	25.7		5.38
1510	5.25	0.10	-18.9	5.74	0.276	20.42	22.8		5.38
1515	5.5	0.09	-21.3	5.75	0.272	20.40	20.6		5.38
1520	5.75	0.09	-22.1	5.76	0.274	20.37	18.8		5.38
1525	6.0	0.09	-22.8	5.76	0.275	20.40	17.6		5.38
1535	6.5	0.09	-23.4	5.76	0.274	20.38	16.7		5.38

NOTES: Collected Sample - Turbidity NOT Settling -

SAMPLE DATE: 12-4-13
SAMPLE TIME: 1540

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260B	VOC list
40ml vial	2	HCl	RSK175	Gases

GENERAL INFORMATION	
WEATHER:	Cold - Cloudy - Some Rain
SHIPPED VIA:	
SHIPPED TO:	AES
SAMPLER: Ever Guillen	OBSERVER:

PROJECT NAME: STI

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.1302

SAMPLING EVENT:

WELL ID: MW-18
WELL MATERIAL:
SAMPLE METHOD: PERISTALTIC

DUP./REP. OF:

Top of Screened interval (btoc):
Screen length:
Arrived at:
Initial PID =
Bailing PID =

WELL DIAMETER:
DEPTH TO WATER: 3.11 GRAB (x) COMPOSITE ( )
TOTAL DEPTH: 14.45
WATER COLUMN HEIGHT: 11.34
PURGE VOLUME: 1.92
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

5.78

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 920	0.25	0.86	81.5	5.05	0.355	21.73	467.3	200 ( )	3.72
925	0.50	0.43	49.0	5.67	0.267	22.16	59.6		3.72
935	1.0	0.31	26.3	5.80	0.247	22.08	44.2		3.96
945	1.5	0.23	22.9	5.77	0.244	21.60	29.6		3.99
955	2.0	0.16	19.4	5.75	0.246	21.56	22.8		4.00
1005	2.5	0.14	13.9	5.74	0.245	21.53	15.3		4.02
1015	3.0	0.13	11.0	5.74	0.236	21.52	10.2		4.05
1025	3.5	0.13	10.5	5.73	0.235	21.50	9.9		4.07
1035	4.0	0.13	9.9	5.73	0.241	21.51	10.1		4.09
1045	4.5	0.13	9.6	5.73	0.239	21.46	9.4		4.13
1055	5.0	0.13	9.2	5.72	0.240	21.45	8.8		4.15
1105	5.5	0.12	8.9	5.72	0.240	21.46	9.8		4.17
1110	5.75	0.12	8.6	5.72	0.241	21.47	8.2		4.18
1115	Collect Sample								

NOTES:

SAMPLE DATE: 12-5-13
SAMPLE TIME: 1115

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8260B	VOC list
40ml vial	2	HCl	RSK 175	Gases

GENERAL INFORMATION			
WEATHER:	COLD - RAINING		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER:	EVER GUILLEN	OBSERVER:	

PROJECT NAME: STI Swainsboro

FIELD SAMPLING REPORT

AMEC Environmental & Infrastructure
1075 BIG SHANTY SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

Project Number: 6125080149.1302

SAMPLING EVENT:

WELL ID: ~~AA~~ DA MW-10

WELL MATERIAL:

SAMPLE METHOD: Peristaltic pump

DUP./REP. OF: _____

Top of Screened interval (btoc): _____

Screen length: _____

Arrived at: 0850

Initial PID = _____

Bailing PID = _____

WELL DIAMETER: 2"

DEPTH TO WATER: 6.65 GRAB (x) COMPOSITE ( )

TOTAL DEPTH: 9.95

WATER COLUMN HEIGHT: 3.3 x 0.163 = 0.54 x 3

PURGE VOLUME: 1.6

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	Diss. Oxygen (+/- 10%)	ORP (+/- 10 mV)	pH (+/- 0.1 pH units)	SPEC. COND. (ms/cm) [+/- 3%]	TEMP (°C)	TURB. (NTU) [<10 NTU]	Pump Rate ml/min. (& pump setting)	New Water Level
Initial: 0910	0.1	6.11	137.8	5.68	0.046	18.22	30.2	200 ( )	7.10
0920	0.5	4.58	46.2	5.35	0.051	18.17	9.5	200	7.08
0930	1.0	4.39	27.9	5.36	0.054	18.14	3.0	200	7.08
0935	1.25	4.34	22.9	5.36	0.054	18.19	1.6	200	7.08
0940	1.5	4.32	18.6	5.37	0.055	18.14	0.0	200	7.08
0945	1.75	4.31	14.5	5.37	0.055	18.15	0.0	200	7.08

NOTES: No product in well and ~~no odor~~ water has very slight odor

SAMPLE DATE: 12/5/13

SAMPLE TIME: 0948

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
40ml vial	2	HCl	8015	TPH GRO
1L amber	2	None	8015	TPH DRO
1L amber	2	H_2SO_4	E1644	Oil + Grease
1L amber	2	None	8270C	SVOC

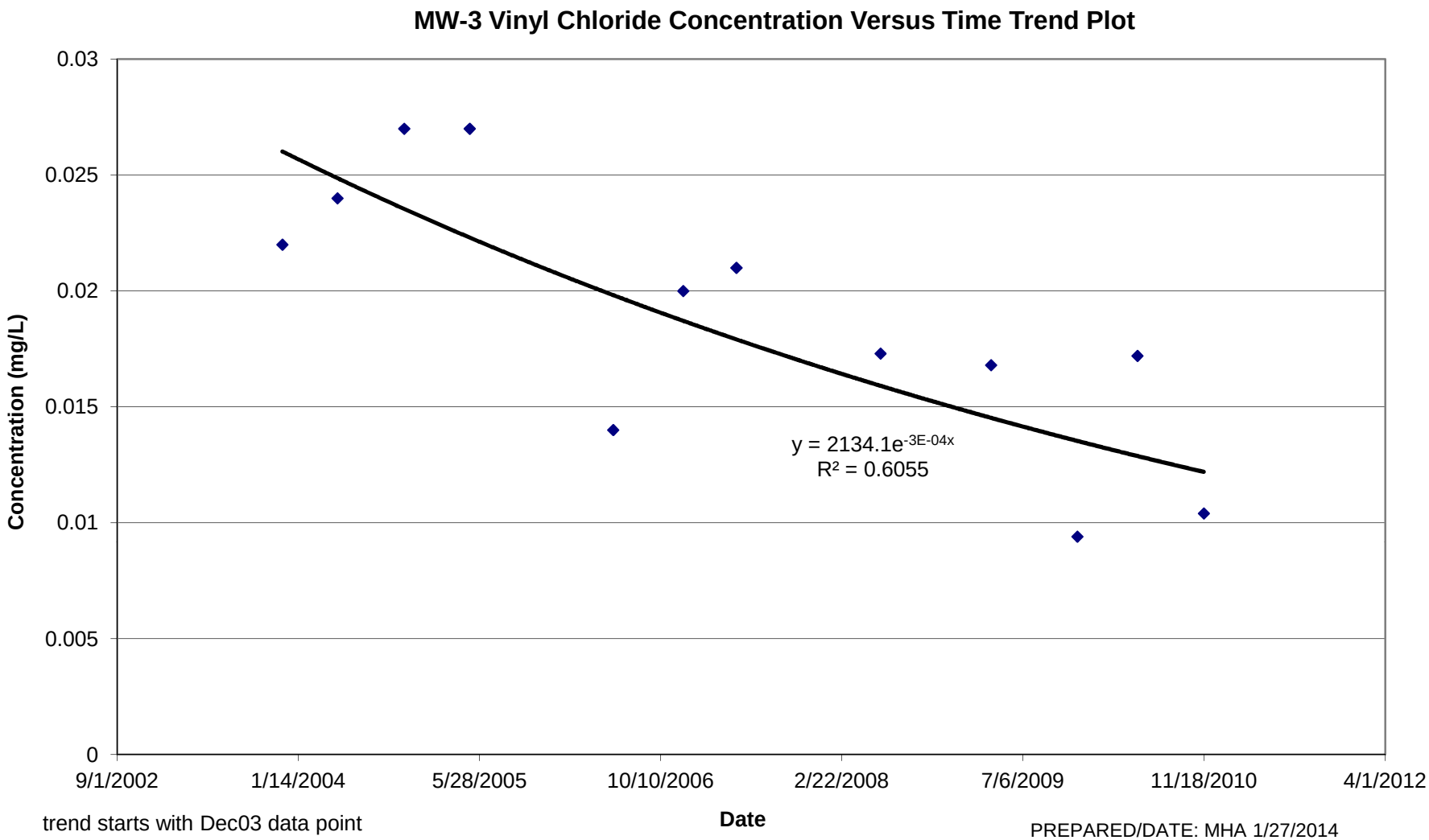
GENERAL INFORMATION			
WEATHER:	Raining, Temp 65°F		
SHIPPED VIA:			
SHIPPED TO:	AES		
SAMPLER:	Daniel Howard	OBSERVER:	

APPENDIX C

VOC CONCENTRATION TREND GRAPHS

STI Properties, Inc.
Swainsboro, GA

February 2014

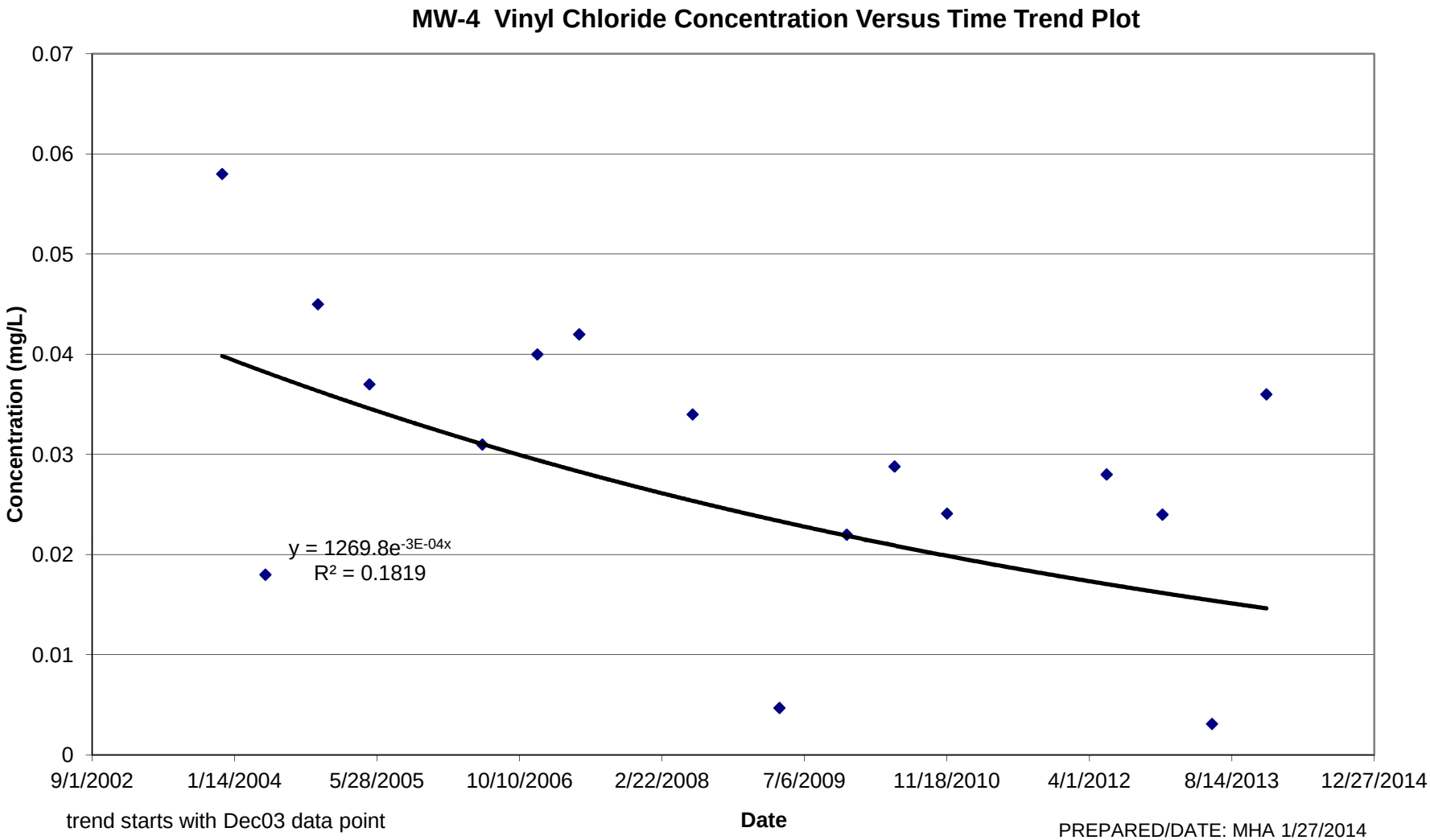


trend starts with Dec03 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/4/2014

STI Properties, Inc.
Swainsboro, GA

February 2014

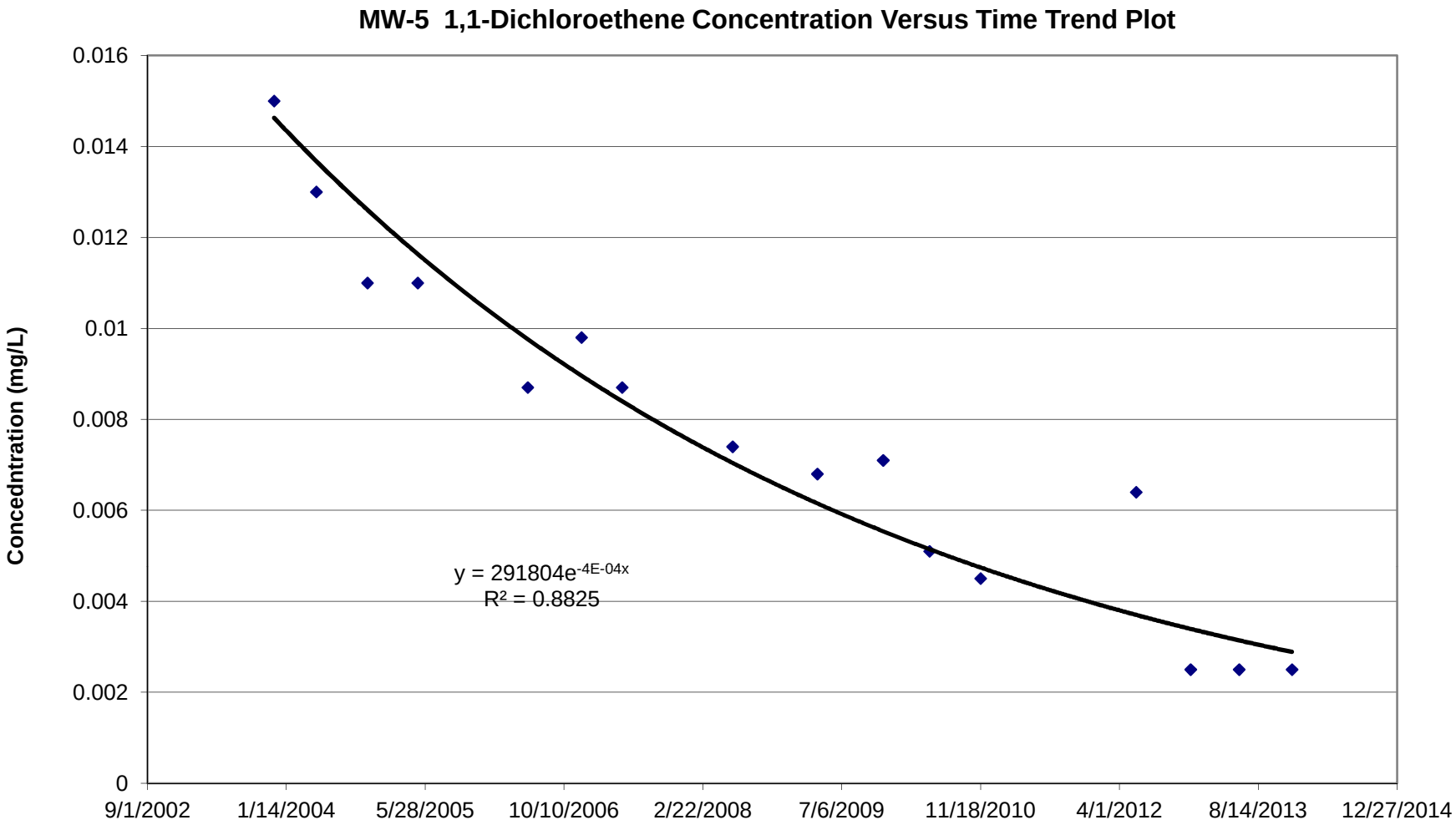


trend starts with Dec03 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/4/14

STI Properties, Inc.
Swainsboro, GA

February 2014



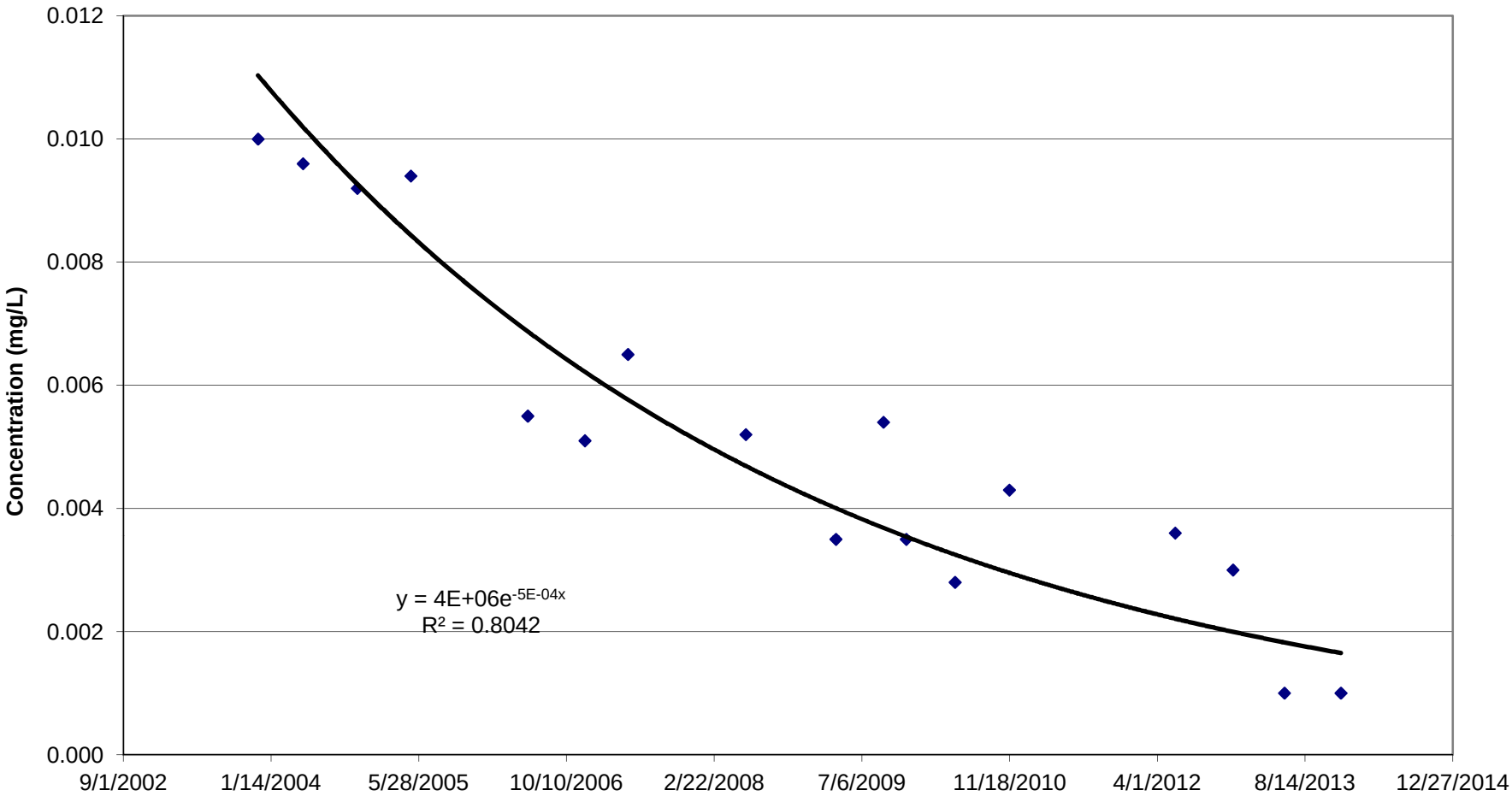
trend starts with Dec03 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/4/2014

STI Properties, Inc.
Swainsboro, GA

February 2014

MW-6 Vinyl Chloride Concentration Versus Time Trend Plot



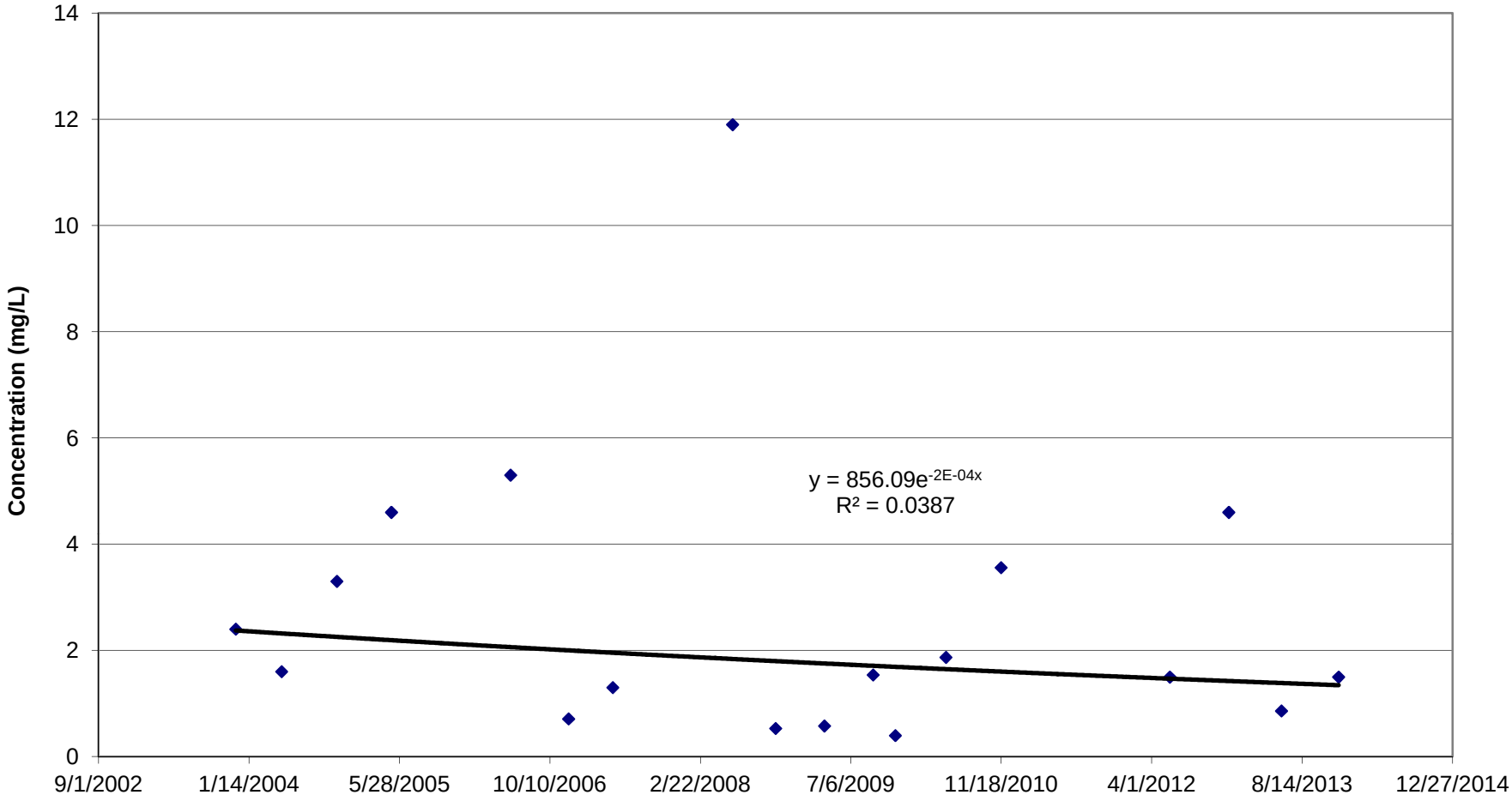
trend starts with Dec03 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/4/14

STI Properties, Inc.
Swainsboro, GA

February 2014

MW-8 Trichloroethene Concentration Versus Time Trend Plot

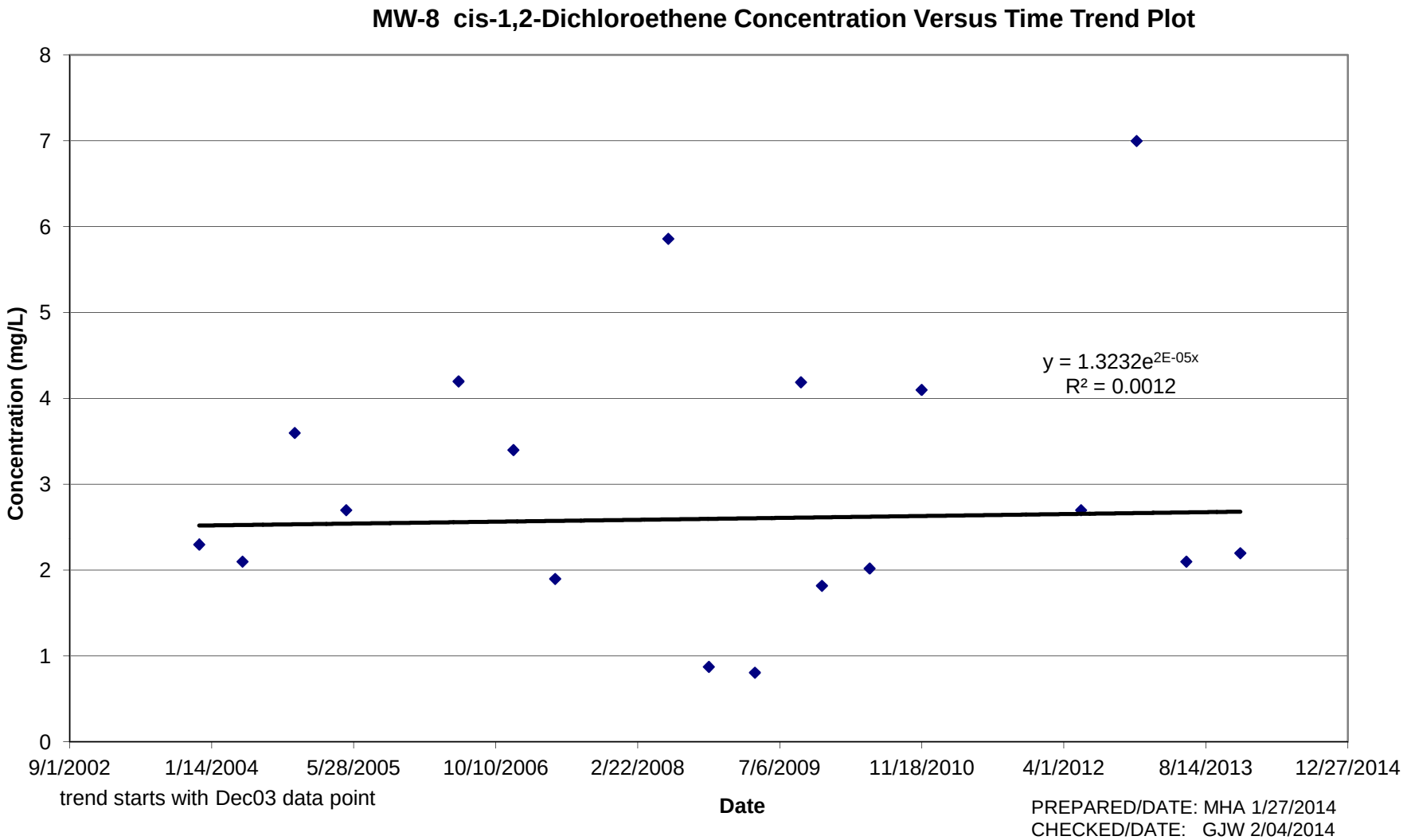


trend starts with Dec03 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/04/2014

STI Properties, Inc.
Swainsboro, GA

February 2014

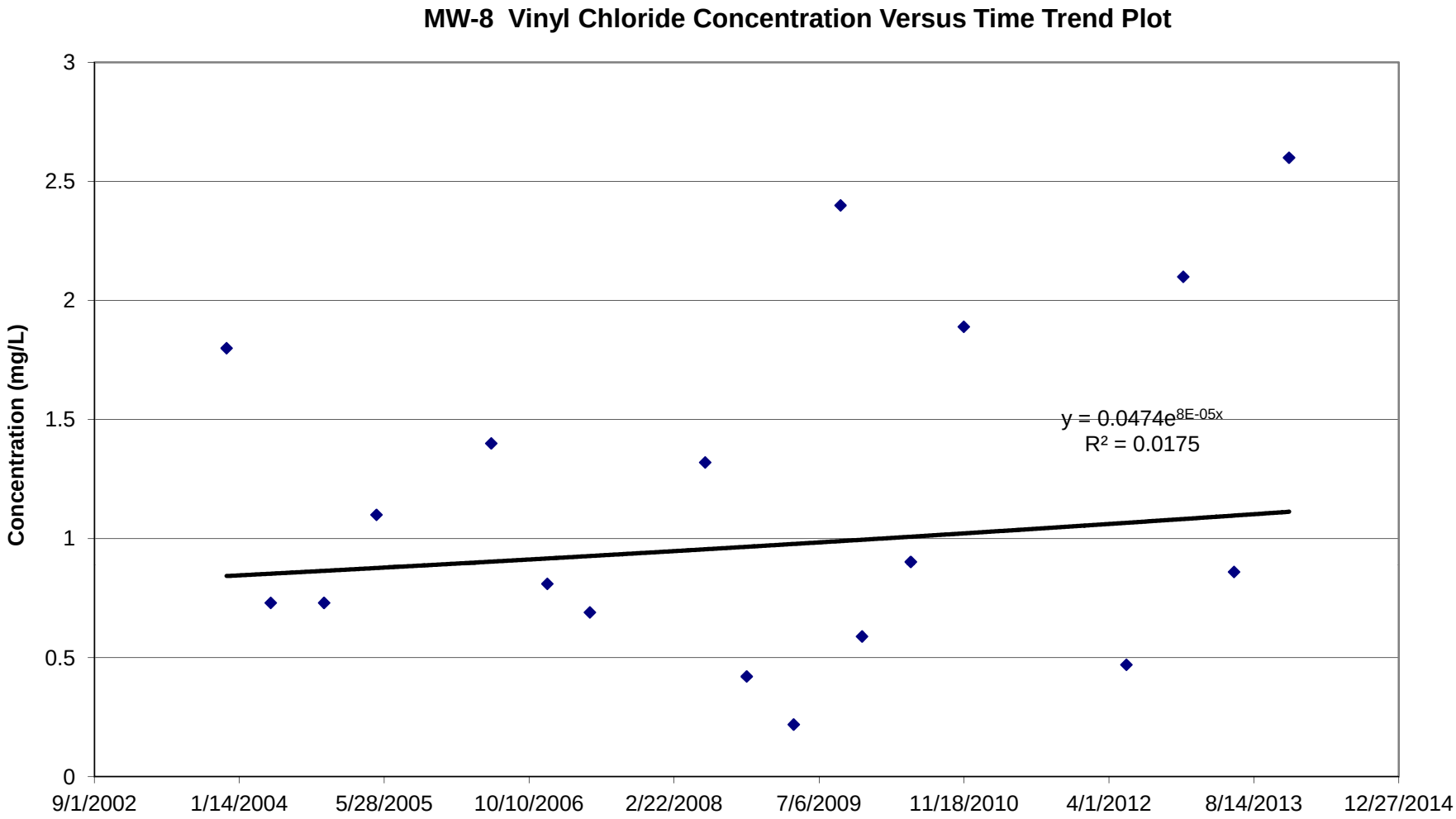


trend starts with Dec03 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/04/2014

STI Properties, Inc.
Swainsboro, GA

February 2014

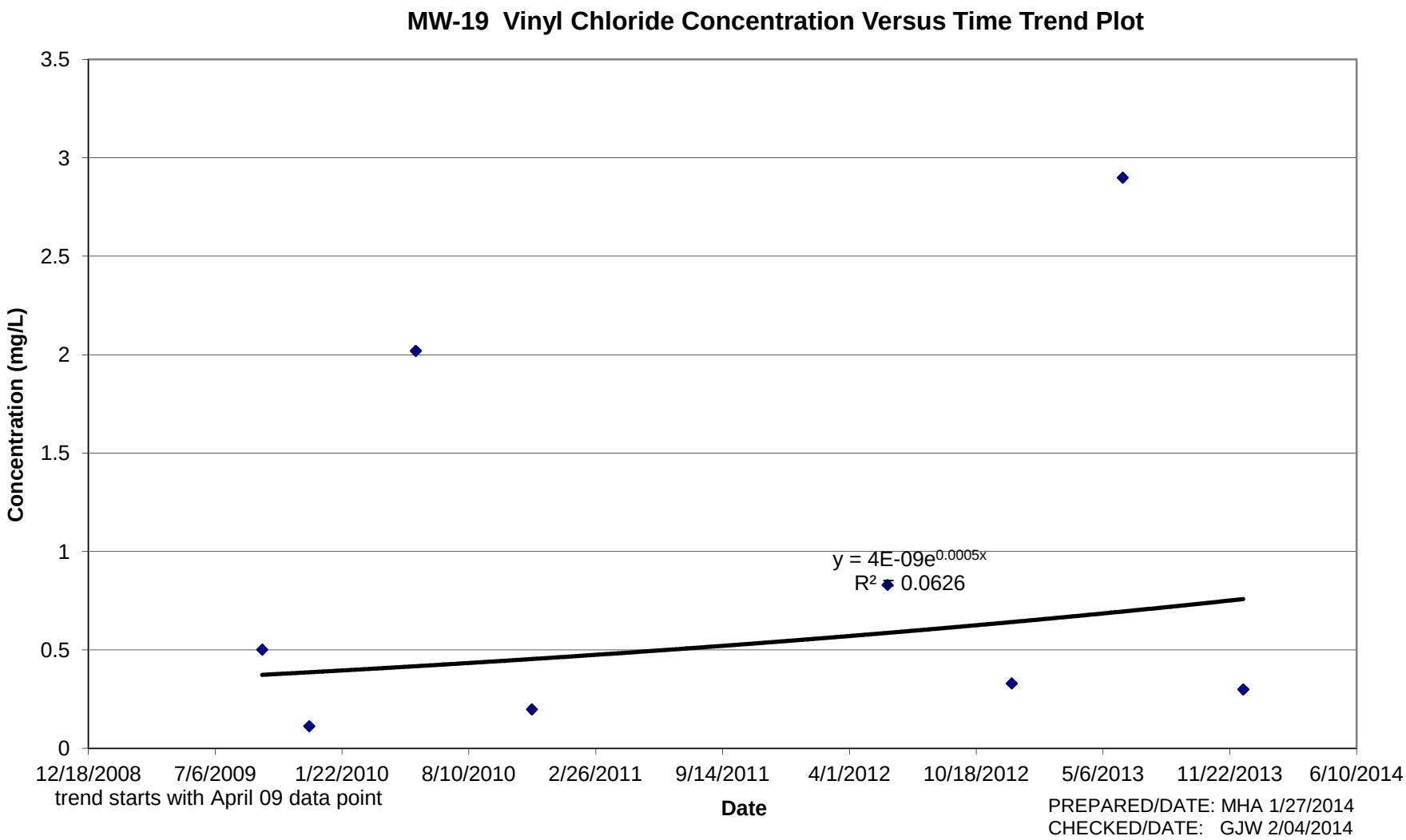


trend starts with Dec03 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/04/2014

STI Properties, Inc.
Swainsboro, GA

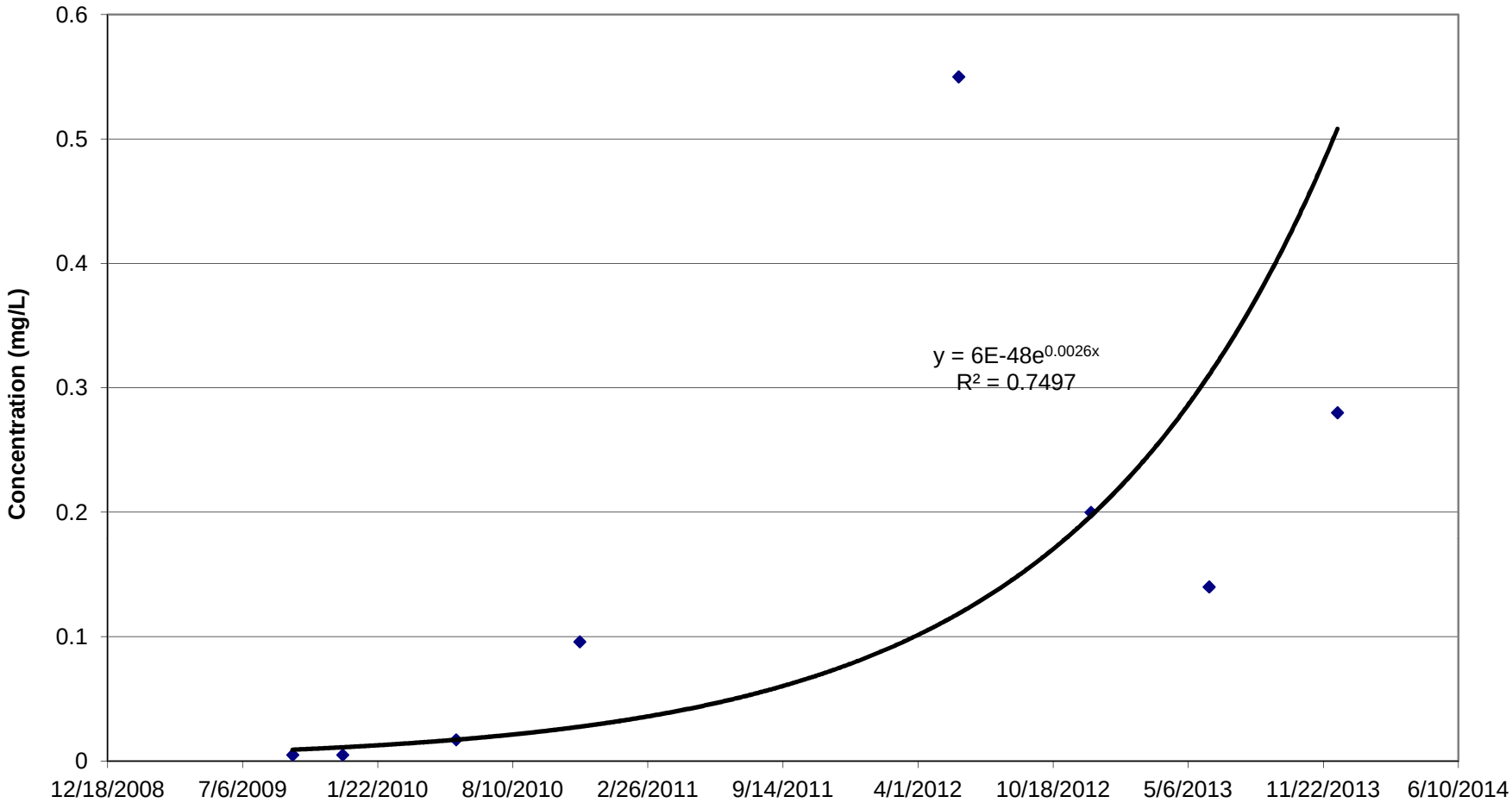
February 2014



STI Properties, Inc.
Swainsboro, GA

February 2014

MW-19 Trichloroethene Concentration Versus Time Trend Plot

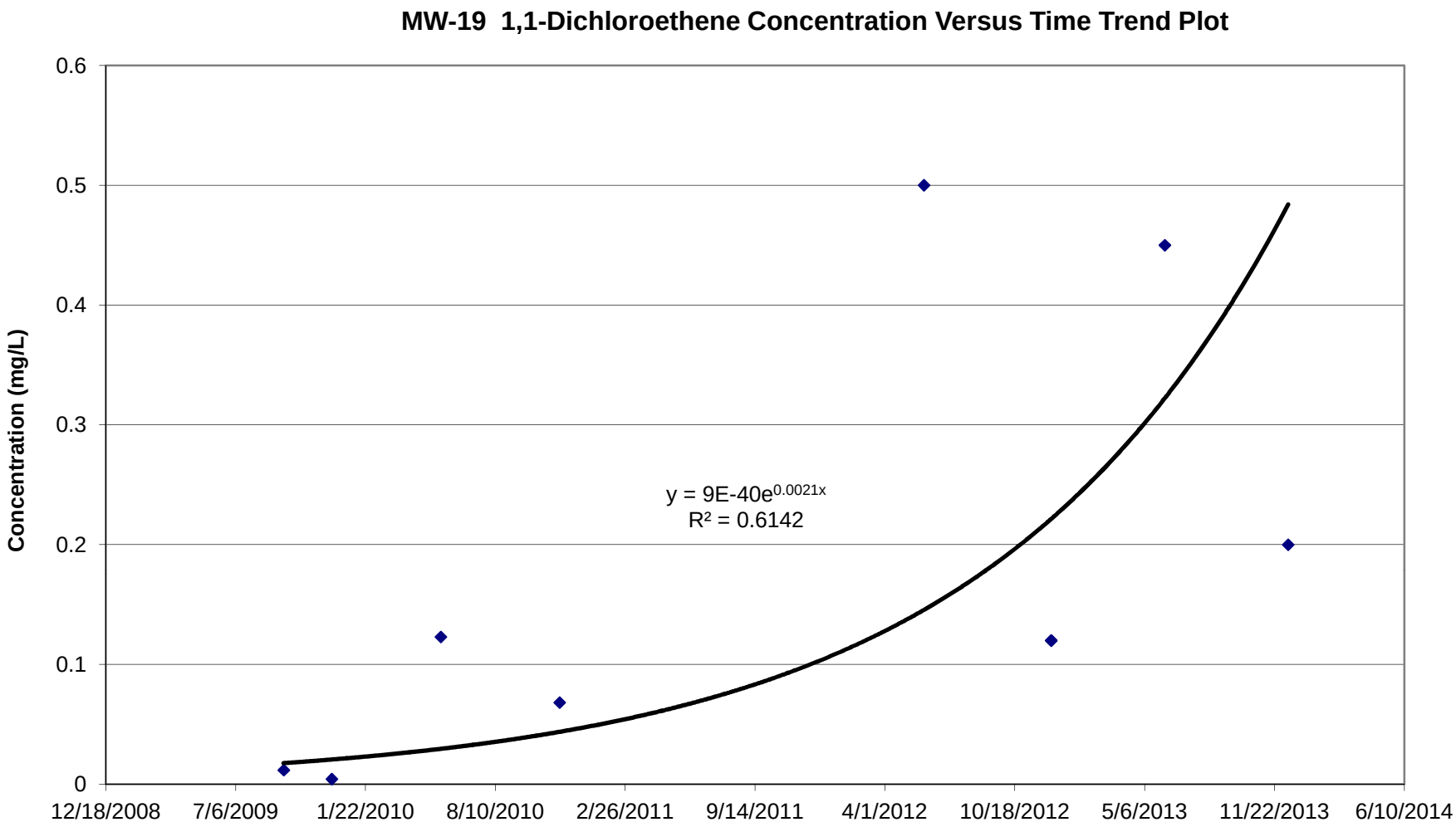


trend starts with September 09 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/04/2014

STI Properties, Inc.
Swainsboro, GA

February 2014



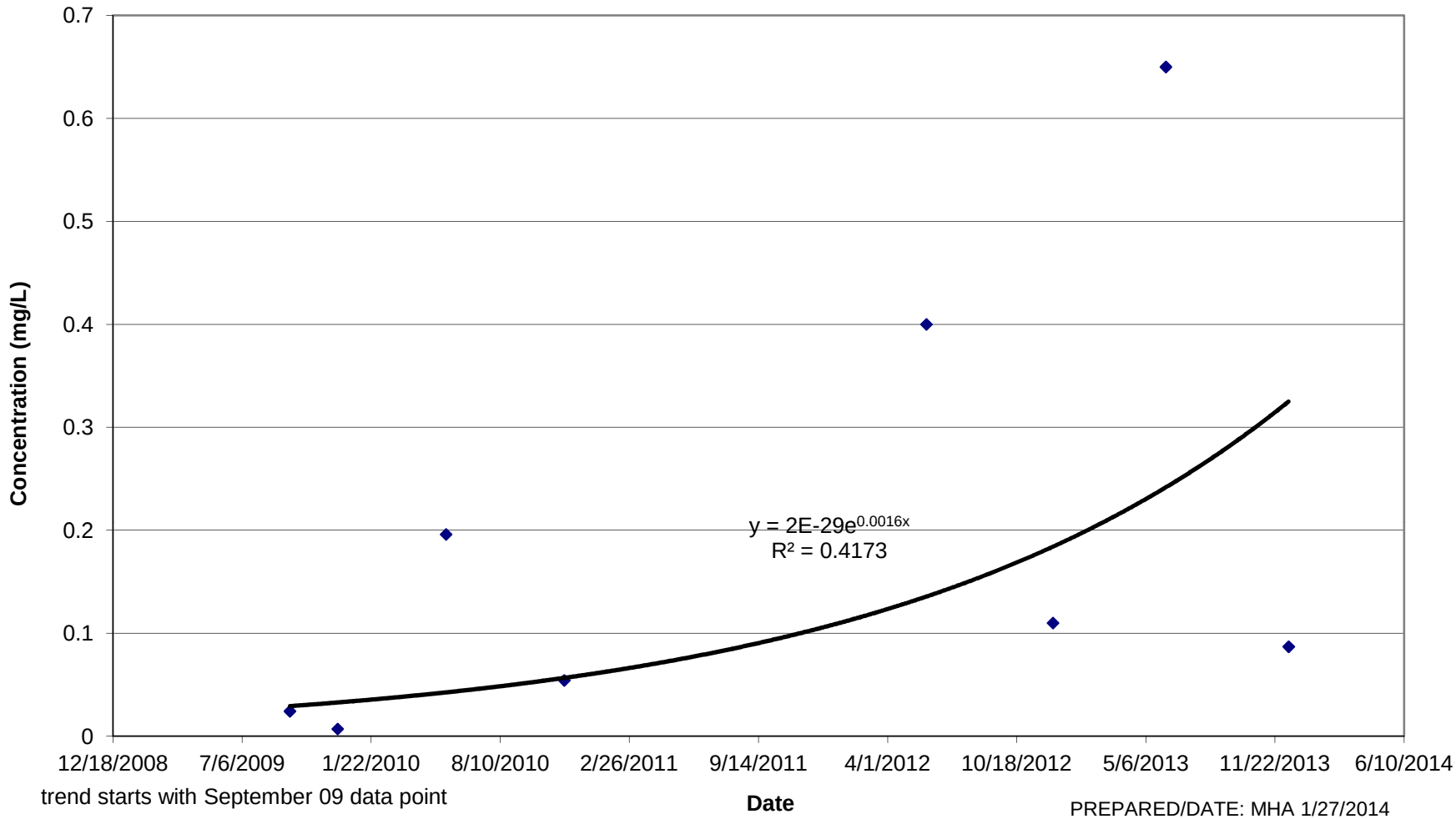
trend starts with September 09 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/04/2014

STI Properties, Inc.
Swainsboro, GA

February 2014

MW-19 cis-1,2-Dichloroethene Concentration Versus Time Trend Plot



trend starts with September 09 data point

PREPARED/DATE: MHA 1/27/2014
CHECKED/DATE: GJW 2/04/2014

APPENDIX D

GROUNDWATER MODELING UPDATE

MODEL CALIBRATION – YEAR 2013 (YR 17)
STI SWAINSBORO, GA

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

STI
Swainsboro, GA
Run Name

Data Input Instructions:

115 → 1. Enter value directly....or
or 2. Calculate by filling in gray
0.02 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	50.0	(ft/yr)
or			
Hydraulic Conductivity	K	7.1E-04	(cm/sec)
Hydraulic Gradient	i	0.0136	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	11.739	(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-3	(-)	
Partition Coefficient	Koc			
PCE		426	(L/kg)	4.41 (-)
TCE		130	(L/kg)	2.04 (-)
DCE		125	(L/kg)	2.00 (-)
VC		30	(L/kg)	1.24 (-)
ETH		302	(L/kg)	3.42 (-)
Common R (used in model)* =				**2.04**

4. BIOTRANSFORMATION -1st Order Decay Coefficient*

Zone 1	λ (1/yr)	half-life (yrs)	Yield
PCE → TCE	0.000		0.79
TCE → DCE	2.400		0.74
DCE → VC	2.200		0.64
VC → ETH	1.900		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*	17	(yr)
Modeled Area Width*	100	(ft)
Modeled Area Length*	350	(ft)
Zone 1 Length*	350	(ft)
Zone 2 Length*	0	(ft)

Zone 2= L - Zone 1

6. SOURCE DATA TYPE: Decaying Single Planar

Source Options

Source Thickness in Sat. Zone* 10 (ft)

Width* (ft) Y1 20

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0.1
TCE	28.0	0.1
DCE	18.0	0.1
VC	4.0	0.1
ETH	0.23	0.1

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)			
TCE Conc. (mg/L)	1.6	.003	.001
DCE Conc. (mg/L)	2.2	.003	.001
VC Conc. (mg/L)	2.6	.005	.001
ETH Conc. (mg/L)			
Distance from Source (ft)	10	100	350
Date Data Collected	2013		

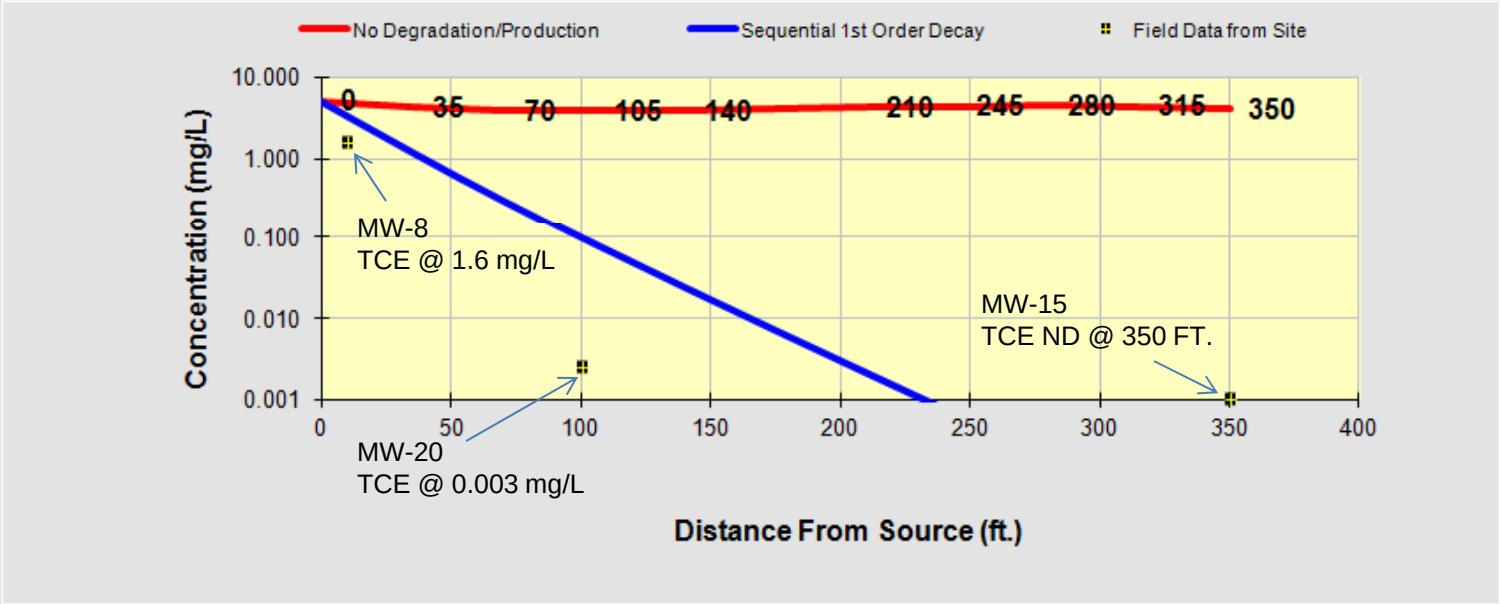
8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | RUN ARRAY | Help | Restore Formulas | RESET | SEE OUTPUT | Paste Example | Unprotect Sheet

MODEL CALIBRATION – TCE IN YEAR 2013 (YR 17)
STI SWAINSBORO, GA

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

TCE	Distance from Source (ft)										
	0	35	70	105	140	175	210	245	280	315	350
No Degradation	5.115	4.341	3.902	3.818	3.894	4.054	4.247	4.416	4.489	4.394	4.079
Biotransformation	5.1151	1.220	0.308	0.085	0.024	0.007	0.002	0.001	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	10	100	350								
Field Data from Site	1.600	0.003	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time: 17.0 Years

Log ⟺ Linear

Unprotect Sheet

Return to Input

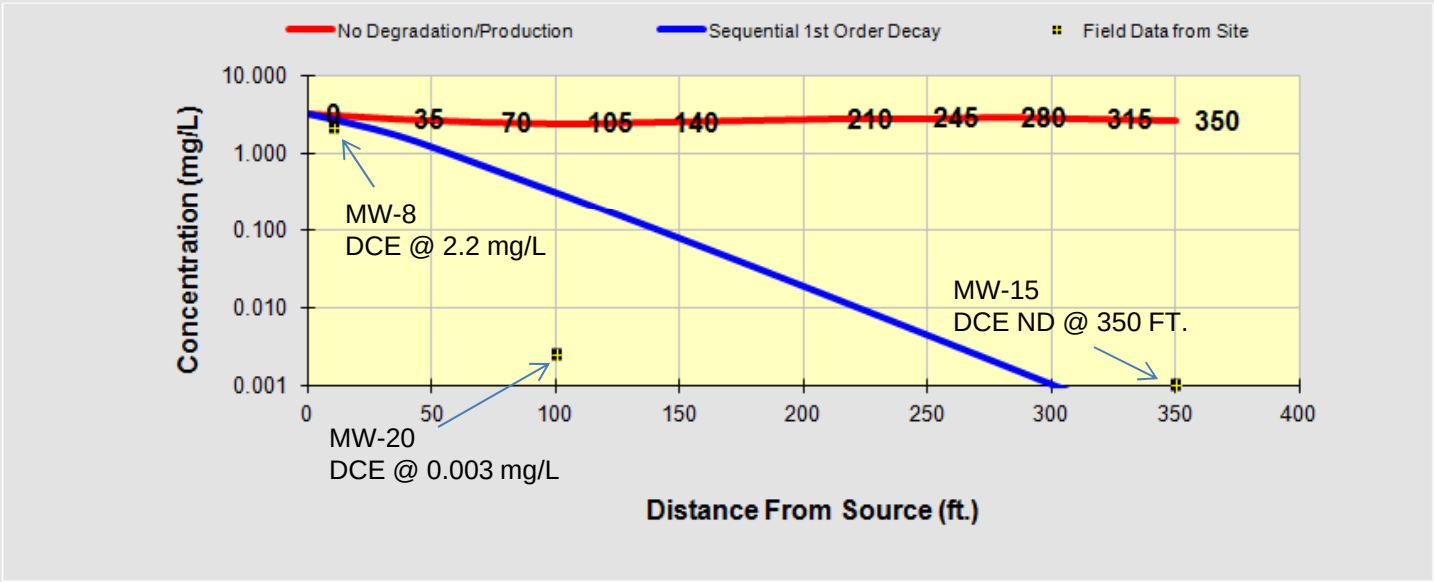
To All

To Array

MODEL CALIBRATION – DCE IN YEAR 2013 (YR 17)
STI SWAINSBORO, GA

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

DCE	Distance from Source (ft)										
	0	35	70	105	140	175	210	245	280	315	350
No Degradation	3.288	2.790	2.508	2.455	2.503	2.606	2.730	2.839	2.886	2.824	2.622
Biotransformation	3.2883	1.765	0.715	0.277	0.105	0.039	0.014	0.005	0.002	0.001	0.000
	Monitoring Well Locations (ft)										
	10	100	350								
Field Data from Site	2.200	0.003	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:
17.0 Years
Log ⟺ Linear

Unprotect Sheet

Return to Input

To All

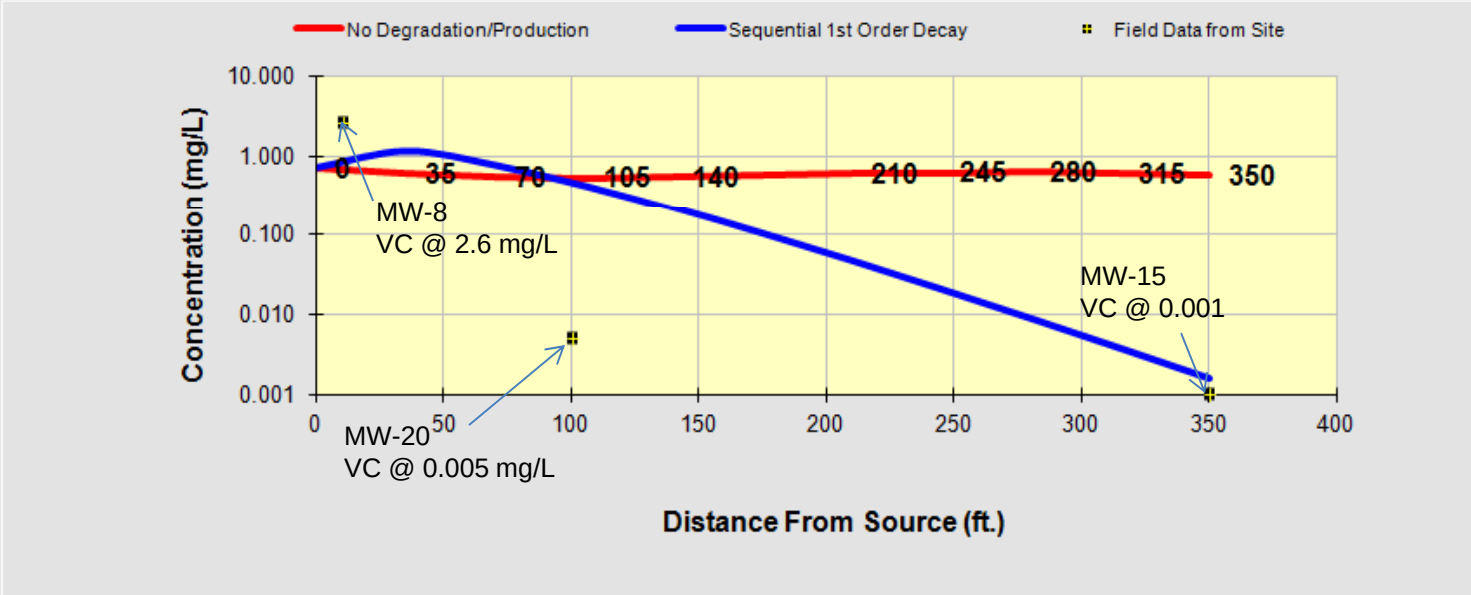
To Array

MODEL CALIBRATION – VC IN YEAR 2013 (YR 17)
STI SWAINSBORO, GA

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

VC	Distance from Source (ft)										
	0	35	70	105	140	175	210	245	280	315	350
No Degradation	0.731	0.620	0.557	0.545	0.556	0.579	0.607	0.631	0.641	0.628	0.583
Biotransformation	0.7307	1.168	0.777	0.429	0.215	0.102	0.047	0.021	0.009	0.004	0.002

	Monitoring Well Locations (ft)										
	10	100	350								
Field Data from Site	2.600	0.005	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time: 17.0 Years

Log ⟺ Linear

Unprotect Sheet

Return to Input

To All

To Array