2011 ANNUAL PROGRESS REPORT AND REMEDIAL PROGRESS EVALUATION

FORMER TAYLOR INSTRUMENTS SITE
95 AMES STREET
ROCHESTER, NEW YORK

PREPARED FOR:

ABB, INC.
5 WATERSIDE CROSSING
WINDSOR, CT 06095

PREPARED BY:

AMEC ENVIRONMENT & INFRASTRUCTURE, INC.
9725 COGDILL ROAD
KNOXVILLE, TN 37932

AMEC PROJECT 3031052006

March 2012

March 13, 2012

Mr. Frank Sowers
Project Manager
NYSDEC
Region 8 - Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414-9519

Subject: **2011 Annual Progress Report and Remedial Progress Evaluation**
Voluntary Cleanup Agreement (VCA) Index B8-0508-97-02
Former Taylor Instruments Facility
Rochester, New York
AMEC Project 3031052006

Dear Mr. Sowers:

In accordance with Section X.I.B. of the Taylor Instruments Site Voluntary Cleanup Agreement, enclosed please find one hard copy and one electronic copy of the 2011 Annual Progress Report and Remedial Progress Evaluation. The Periodic Review Report is included as an appendix.

During 2011, MACTEC Engineering and Consulting, Inc. was acquired by AMEC Environment and Infrastructure, Inc. (AMEC). Please change the name accordingly on future correspondence and the PRR request for the upcoming year.

If you have any questions, please call me at (865) 671-6774.

Sincerely,

AMEC Environment & Infrastructure, Inc.

Ricky A. Ryan, P.E.
Senior Principal Project Manager

Courtney R. Wolf
Staff Engineer

[1096]

Enclosures

cc: Bart Putzig, NYSDEC (w/o enclosure [*electronic*])
James D. Charles, NYSDEC (w/o enclosure [*electronic*])
Jeffrey M. Kosmala, MCDOH (w/o enclosure)
Katherine Fish, NYSDOH (w/ 1 electronic enclosure)
Jean McCreary, Nixon Peabody LLP (w/ 1 electronic enclosure)
David McAdams, Thermo Fisher Scientific (w/ 1 electronic enclosure)
Melody Christopher, ABB (w/ 1 hard copy + electronic enclosure)
Nelson Walter, AMEC (w/o enclosure [*electronic*])

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and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

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LIST OF TABLES

Table No. **Description**

Tables are contained in Appendix C.

LIST OF ACRONYMS

µg/L	micrograms per liter
µmole/L	micromoles per liter
3DMe®	3-D Microemulsion®
AMEC	AMEC Environment & Infrastructure, Inc.
COC	contaminant of concern
1,1-DCE	1,1-dichloroethene
cis-1,2-DCE	cis-1,2-dichloroethene
trans-1,2-DCE	trans-1,2-dichloroethene
EPA	Environmental Protection Agency
MS	matrix spike
MS/MSD	matrix spike/matrix spike duplicate
MSD	matrix spike duplicate
NYSDEC	New York State Department of Environmental Conservation
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCE	tetrachloroethene
QC	quality control
RPD	relative percent difference
TCE	trichloroethene
VOC	volatile organic compound

1.0 INTRODUCTION

This annual progress report summarizes the results from site wide groundwater sampling events conducted in May and November 2011. These activities occurred at the former Taylor Instruments Site – New York State Department of Environmental Conservation (NYSDEC) Site #828028a located at 95 Ames Street in Rochester, New York (Figure 1 in Appendix A), pursuant to a Voluntary Cleanup Agreement (NYSDEC, 1997). The 2011 sampling events were the initial sampling events since AMEC Environment & Infrastructure, Inc. (AMEC) completed an expanded accelerated bioremediation application using 3-D Microemulsion® (3DMe®) in 2010 as the final required active site remediation. This continued remedial evaluation is consistent with the statement of remedial action objectives in Section 2.2 of the approved *Remedial Work Plan* (Harding Lawson, 2000): "The short-term criteria (approximately 2 years) to track the effectiveness of the remediation of VOCs [volatile organic compounds] in groundwater is to demonstrate a downward trend in VOC concentrations achieved using a combination of active, passive, and accelerated biodegradation remedial technology approaches." All activities described herein are also consistent with an assignable release for the site, granted by the NYSDEC via letter dated September 2, 2005 (NYSDEC, 2005). In the same letter, NYSDEC approved previous remedial activities as implemented, which included the operation and maintenance of a groundwater remedial treatment system, and determined that no further investigation or response would be required at the site to render it safe for contemplated uses.

Details of the Site investigation and remedial history, including the certification of engineering and institutional controls, are presented in the *Periodic Review Report,* which is provided in Appendix B of this report as requested by NYSDEC (NYSDEC, 2010a).

The first semi-annual sampling event for 2011 was conducted in May and the second in November. A summary of the sampling event results for the baseline event, as well as events from 2001-2011, are also included.

Following decommissioning of the remedial treatment system and selected monitoring wells in 2010, 14 monitoring wells remain on the Site, as shown in Figure 1 (Appendix A). Unless otherwise agreed to by NYSDEC, contaminant conditions will continue to be monitored until groundwater concentrations of the contaminants of concern (COCs) are at or below the NYSDEC Class GA Standards.

2.0 GROUNDWATER MONITORING

2.1 SCOPE OF WORK

AMEC personnel performed the May and November sampling events to provide an inclusive set of groundwater analytical data for the 2011 reporting period. During each event, 20 samples were collected and submitted to Test America, Inc. for VOC analyses by U.S. Environmental Protection Agency (EPA) Method 8260B (Table 1, Appendix C). As requested by NYSDEC in an October 27, 2010 email (NYSDEC, 2010b), the samples were analyzed for the six primary COCs remaining at the Site: tetrachloroethene (PCE); trichloroethene (TCE); cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); 1,1- dichloroethene (1,1-DCE); and vinyl chloride. Data for dissolved oxygen, oxygen reduction potential, pH, and temperature were also collected in the field during the sampling events. Six of the 20 samples collected for each event were associated with quality control efforts. All environmental samples, including field duplicates and matrix spike/matrix spike duplicate (MS/MSD) samples, were collected using a low-flow peristaltic pump at flow rates <400 milliliters per minute.

Analytical results from the 14 remaining Site wells are presented in Figures 2 and 3 (Appendix A). Laboratory reports and chain-of-custody forms for the 2011 samples are located in Appendices D and E, respectively. Field measurements of pH, conductivity, temperature, turbidity, oxidation-reduction potential, and dissolved oxygen were collected during purging. Purge and sample field data are presented on the field data records located in Appendix F.

2.2 SUMMARY OF RESULTS

This section presents the results of the groundwater sampling events conducted during 2011. As detailed below, the results from May event showed the effects of contaminant desorption following the 3DMe® injection, while the results from November event showed the effects of subsequent enhanced biodegradation from the 3DMe®. Because of the dynamics associated with sampling events following the injection, the results summary focuses more on the most recent November 2011 results. Tables 1 and 2 (Appendix C) summarize the monitoring well locations with COCs exceeding NYSDEC Class GA standards for overburden and bedrock monitoring wells, respectively. Tables 3 and 4 (Appendix C) show a historical summary of analytical results for the remaining overburden and bedrock monitoring wells, respectively, shown on Figure 1 (Appendix A). Sample VOC results are also presented in "flag boxes" in Appendix A, Figures 2 and 3, representing overburden monitoring wells and bedrock monitoring wells,

respectively. Complete laboratory analytical data reports for the 2011 events are included in Appendix D. Well construction information is provided in Appendix G.

During the May and November 2011 sampling events, PCE and 1,1-DCE were not detected at concentrations exceeding the Class GA standard of 5 micrograms per liter (µg/L) in the Site monitoring wells.

As shown in Tables 1 and 2 (Appendix C), in November 2011 TCE was detected above the Class GA standard of 5 µg/L in the groundwater samples collected from six overburden monitoring wells and two bedrock monitoring wells; cis-1,2-DCE was detected above the Class GA standard of 5 µg/L in the groundwater samples collected from five overburden monitoring wells and six bedrock monitoring wells; trans-1,2-DCE was detected above the Class GA standard of 5 µg/L in the groundwater samples collected from two overburden monitoring wells and two bedrock monitoring wells; and vinyl chloride was detected above the Class GA standard of 2 µg/L in the groundwater samples collected from six overburden monitoring wells and four bedrock monitoring wells.

While certain COCs remain above the NYSDEC Class GA standards, overall declines of COC concentrations have been observed in most site monitoring wells. The greatest decrease has been within the two former source areas, where TCE in overburden monitoring wells OB-04 and OB-08 has decreased by more than 99 percent from the historical high for each respective well, as shown in Figure 2 (Appendix A).

After the expanded accelerated bioremediation application of 3DMe® in the overburden groundwater in 2010, the total COC molar mass in overburden monitoring wells increased from 12.3 micromoles per liter (µmole/L) prior to the injection to 18.5 µmole/L in May 2011, six months after the injection. This increase is typical for the initial months following a 3DMe® injection, as the 3DMe® causes contaminants to de-sorb from the soil particles in the saturated zone matrix, thus increasing the available contaminant mass in the groundwater. However, in November 2011 the total molar mass in these wells dropped to 10.5 µmole/L, a 44% decrease from the May event. Looking at specific COCs, the TCE molar mass in overburden wells has decreased steadily, from 8.8 µmole/L prior to injection to 6.3 µmole/L in May and then 3.3 µmole/L in November; cis-1,2-DCE increased from 2.4 µmole/L prior to injection to 7.1 µmole/L in May but decreased to 5.7 µmole/L in November; and vinyl chloride increased from 0.8 µmole/L prior to injection to 4.8 µmole/L in May but decreased to 1.2 µmole/L in November. The molar mass values are depicted on Figure 4 (Appendix A). These decreases in molar mass indicate that the 3DMe® has enhanced contaminant biodegradation. The 3DMe® application has not yet significantly

affected bedrock contaminant concentrations; however, as the enhanced contaminant biodegradation in the overburden groundwater continues, it is expected that the ongoing overall decreases in COC concentrations in the bedrock groundwater will continue at a more rapid rate.

2.3 POTENTIOMETRIC SURFACE

Associated with each monitoring event, a potentiometric surface map was generated to depict groundwater elevations for the overburden groundwater. Surfer® 8 was used to plot the potentiometric surface maps in Appendix A, Figures 5 and 7. This program mathematically calculates contours based upon groundwater elevation measurements collected in the field.

The May and November 2011 overburden potentiometric maps (Figures 5 and 7 in Appendix A) were based upon water level information collected during the course of sampling activities on the subject site. Overburden potentiometric surface mapping for the water level events is similar to past groundwater mapping.

Attempts have been made to contour the bedrock potentiometric surface, but the bedrock water level data cannot readily be plotted due to the large variation in elevation heads. These variations are due to the fractured bedrock system. The head data appears to be bi-modally distributed possibly reflecting differing elevations of water bearing fractures. The historical absence of contaminants at the southwest corner of the Site and their presence in wells along the north and east site perimeter also support the interpretation that bedrock groundwater flow beneath the two source areas is generally towards the north/northeast. Bedrock water level elevations are presented on Figures 6 and 8 in Appendix A.

3.0 ANALYTICAL PROGRAM

Overall data quality is assessed by grouping particular data evaluation findings and reviewing them in terms of precision, accuracy, representativeness, completeness, and comparability (PARCC) criteria. Data generated during this monitoring period were evaluated for PARCC criteria after receipt of all analytical data.

3.1 PRECISION

Precision is a quantitative evaluation of the repeatability of a measurement. Precision of analytical measurements is determined by calculating the relative percent difference (RPD) between the two numerical values. For precision, the matrix spike (MS) is performed in duplicate, and the values from both analyses are evaluated. Comparison of results from duplicate field samples may also be indicative of overall precision of a data set. However, field duplicates may be influenced by sampling precision and are not as controlled as laboratory duplicates.

For quality control purposes, a MS and matrix spike duplicate (MSD) were taken for each set of 20 samples with a net result of one MS/MSD analyses for the May 2011 sampling event and one MS/MSD analyses for the November 2011 event. The evaluation of MS/MSD criteria was used to qualify the data. The evaluations of MS/MSD analyses are presented in the following tables.

BR-04 – May 2011

Analyte	MS Value (µg/L)	Recovery (%)	MSD Value (µg/L)	RPD	Control Limits (%)	RPD Limit
cis-1,2-DCE	49.0	98	48.2	1.6	57-154	32
trans-1,2-DCE	47.8	96	47.7	0.2	57-157	32
1,1-Dichloroethene	54.2	108	53.5	1.3	34-151	31
Trichloroethene	52.6	105	51.8	1.5	74-139	11
Tetrachloroethene	51.3	103	50.4	1.77	63-155	16
Vinyl chloride	39.3	79	38.2	2.8	53-137	32

BR-04 – November 2011

Analyte	MS Value (µg/L)	Recovery (%)	MSD Value (µg/L)	RPD	Control Limits (%)	RPD Limit
cis-1,2-DCE	23.9	94	24.9	4.1	68-138	17
trans-1,2-DCE	17.2	86	19.2	10.9	66-143	16
1,1-Dichloroethene	18.5	92	19.3	4.2	70-142	17
Trichloroethene	22.2	90	23.1	4.0	73-144	17
Tetrachloroethene	18.4	92	19.8	7.3	72-145	16
Vinyl chloride	11.8	59	12.7	7.3	56-129	17

The RPD evaluations demonstrate that MS/MSD analyses are within acceptable limits.

Field duplicate sampling followed the same sampling outline as MS/MSD analysis. One duplicate sample was collected for each set of 20 samples, resulting in one duplicate sample for the May 2011 and one duplicate sample for the November 2011 sampling event. Field duplicate precision is presented in the following table.

W-5 – May 2011

Sample ID	Analyte	Practical Quantitation Limit	Sample Result (µg/L)	Flag	Duplicate Result (µg/L)	Flag	RPD
W-5	cis-1,2-Dichloroethene	1	117		141		18.6
	trans-1,2-Dichloroethene	1	1.39		1.62		15.3
	Trichloroethene	10	445		432		3.0
	Vinyl Chloride	1	1.51		1.53		1.3

W-5 – November 2011

Sample ID	Analyte	Practical Quantitation Limit	Sample Result (µg/L)	Flag	Duplicate Result (µg/L)	Flag	RPD
W-5	cis-1,2-Dichloroethene	1	130		153		16.3
	trans-1,2-Dichloroethene	1	1.41		1.74		21.0
	Trichloroethene	5	293		325		10.4
	Vinyl Chloride	1	12.5		17.0		30.5

Field duplicate precision was evaluated between the two data sets for detected compounds. The RPDs were near or below the National Functional Data Validation Guideline of 30 for water samples.

3.2 ACCURACY

Accuracy is a quantitative measurement of agreement between an analytical result and the true value. Accuracy is determined by comparing known amounts of analytes, which are added to the sample prior to analysis, to the field analytical results. Accuracy is expressed as a percentage of recovery of the total amount of spiked analyte. For VOC analyses, each sample was spiked with surrogate compounds prior to analysis (and extraction), and chosen samples were spiked (in duplicate) with additional spikes (MS and MSD). Surrogate and MS/MSD recoveries evaluate accuracy and identify interferences from the sample matrix.

Surrogate recoveries were acceptable for VOC analyses for these sampling events.

3.3 REPRESENTATIVENESS

Representativeness is a qualitative measurement of the degree to which analytical results reflect the true concentrations of analytes that may (or not) be present in a sample. Representativeness of organic analytical results of true site conditions is evaluated using trip blanks, field blanks, method blanks, and rinsates from decontaminated sampling equipment. Target organic compounds in quality control (QC) samples may represent contamination during sampling or transportation of samples to the laboratory. Compliance with holding time and extraction criteria also assures representativeness of results.

One field blank for the May 2011 event and one field blank for the November 2011 event were analyzed to characterize the water source used during these sampling events. Distilled water was used by the field crews for field blanks. No target VOCs were detected above the reporting limit in the field blanks.

No target VOCs were detected above the reporting limit in the method blank in May 2011 or November 2011.

One trip blank was analyzed during the May 2011 sampling event and one trip blank was analyzed during the November 2011 event as part of the VOC laboratory QC program. No target VOCs were detected above the reporting limit in either of the trip blanks.

Equipment rinse samples were collected for each set of 20 samples, using distilled water to rinse field equipment, and analyzed for all target constituents. One rinsate blank was collected during the May 2011 event and the November 2011 event. No target VOCs were detected above the reporting limit in any of the rinsate blanks.

Representativeness is considered complete due to the lack of target VOC detections in QC efforts.

3.4 COMPLETENESS

Completeness is a quantitative measurement of the usability of a data set. Completeness is defined as the percentage of data that satisfy validation criteria. Rejected data are not usable. Data qualified as estimated, however, is usable. Completeness goals were 100 percent for this report and are considered to be met.

3.5 COMPARABILITY

Comparability is a qualitative assessment of the confidence with which different data sets may be used to characterize a site. Comparability is a necessary criterion because sampling is often performed at different times and precision, accuracy, and representativeness are unique to each sampling event. Comparability between data generated at different times at a single site is evaluated by reviewing sample collection and handling procedures, sample matrix, and analytical methods used. Standardization of sampling protocols and analytical methods assures comparability as long as precision and accuracy criteria are satisfied for each data set. The overall analytical performance for this report was evaluated and should be comparable to previous and future data sets.

4.0 CONCLUSIONS AND RECOMMENDATIONS

A comparison of analytical data from the 27 sampling events that occurred from 2001-2011 provides an evaluation of the site remedial progress. The following overall conclusions and recommendations have been reached in this remedial progress evaluation:

- Following shutdown of the remedial treatment system in 2006 and subsequent decommissioning in 2010, overall contaminant levels in the Site monitoring wells have not demonstrated significant rebound effects, and overall declines remain evident.

- In October 2010, AMEC completed an expanded accelerated bioremediation application using 3DMe® as the final required active Site remediation in the vicinities of the remaining source area overburden monitoring wells and select perimeter monitoring wells in which concentrations of COCs exceeded NYSDEC Class GA Standards. By accelerating the biodegradation of COCs in the overburden groundwater, it is expected that the ongoing overall decreases in COC concentrations in all downgradient locations, as well as in the bedrock groundwater, will continue at a more rapid rate.

- While certain COCs remain above the NYSDEC Class GA standards, overall declines of COC concentrations have been observed in most site monitoring wells. The greatest decrease has been within the two former source areas, where TCE in overburden monitoring wells OB-04 and OB-08 has decreased by more than 99 percent from the historical high for each respective well.

- After the expanded accelerated bioremediation application of 3DMe® in the overburden groundwater in 2010, the total COC molar mass in overburden monitoring wells increased from 12.3 µmole/L prior to the injection to 18.5 µmole/L in May 2011, six months after the injection. This increase is typical for the initial months following a 3DMe® injection, as the 3DMe® causes contaminants to de-sorb from the soil particles in the saturated zone matrix, thus increasing the available contaminant mass in the groundwater. However, in November 2011 the total molar mass in these wells dropped to 10.5 µmole/L, a 44% decrease from the May event. The molar mass values are depicted on Figure 4 (Appendix A). These decreases in molar mass indicate that the 3DMe® has enhanced contaminant biodegradation.

- The 3DMe® application has not yet significantly affected bedrock contaminant concentrations; however, as the enhanced contaminant biodegradation in the overburden groundwater continues, it is expected that the ongoing overall decreases in COC concentrations in the bedrock groundwater will continue at a more rapid rate.

- Groundwater monitoring events will continue to be conducted semi-annually on all 14 remaining monitoring wells. Groundwater samples will be analyzed for the six primary COCs remaining at the Site: TCE; PCE; cis-1,2-DCE; trans-1,2-DCE; 1,1-DCE; and vinyl chloride. These VOCs will be analyzed using EPA Method 8260B. Additionally, as requested by NYSDEC in an October 27, 2010 email

(NYSDEC, 2010b), the groundwater samples will be analyzed for the full suite of 8260B constituents once every five years and prior to ending monitoring at any specified well. Results of the post-closure monitoring will be provided to NYSDEC in subsequent annual reports. Unless otherwise agreed to by NYSDEC, contaminant conditions will continue to be monitored until groundwater concentrations of the COCs are at or below the NYSDEC Class GA Standards.

- As requested by NYSDEC (NYSDEC, 2010a), the Site Periodic Review Report is provided in Appendix B of this report.

5.0 REFERENCES

Harding Lawson, 2000. *Remedial Work Plan, Former Taylor Instruments Site, 95 Ames Street in Rochester, New York*. Prepared for Combustion Engineering (April).

NYSDEC, 1997. Voluntary Cleanup Agreement regarding the Taylor Instruments Site, Number B8-0508-97-02 (November).

NYSDEC, 2005. Letter to Ms. Jean H. McCreary with Nixon Peabody LLC (September 2).

NYSDEC, 2010a. *Site Management Periodic Review Report (PRR) Response Letter* (July 29).

NYSDEC, 2010b. Email from Mr. Frank Sowers with the New York State Department of Environmental Conservation to Mr. Ricky A. Ryan with MACTEC Engineering and Consulting, Inc. (October 27).

APPENDIX A

FIGURES

HAGUE STREET

WEST AVENUE

AMES STREET

FORMER SOUTH TCE SOURCE AREA

FORMER NORTH TCE SOURCE AREA

VACANT BUILDING

VACANT SHED

BUILDING FOUNDATION

CONC. SLAB

N/F NEW YORK CENTRAL RAILROAD RAILROAD TRACKS

LEGEND

- RAILROAD TRACKS
- CHAIN LINK FENCE
- WROUGHT IRON FENCE
- GUARD RAIL
- BEDROCK MONITORING WELL (BR)
- OVERBURDEN MONITORING WELL (OB, MW, TW, W)

BR-04
OB-04
OB-06
BR-10
BR-03
TW-04
BR-02
TW-09
TW-20
OB-08
BR-15
W-5
BR-01
TW-17

0 80'

SCALE: 1"=80'

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:

WELL LOCATIONS

ANNUAL REPORT 2011

FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV: NA	PROJ. NO.: 3031-05-2006
CHK: JD	DATE: 02-13-2012	DWG NO. NA
SCALE: 1" - 80'		FIGURE. NO.: 1

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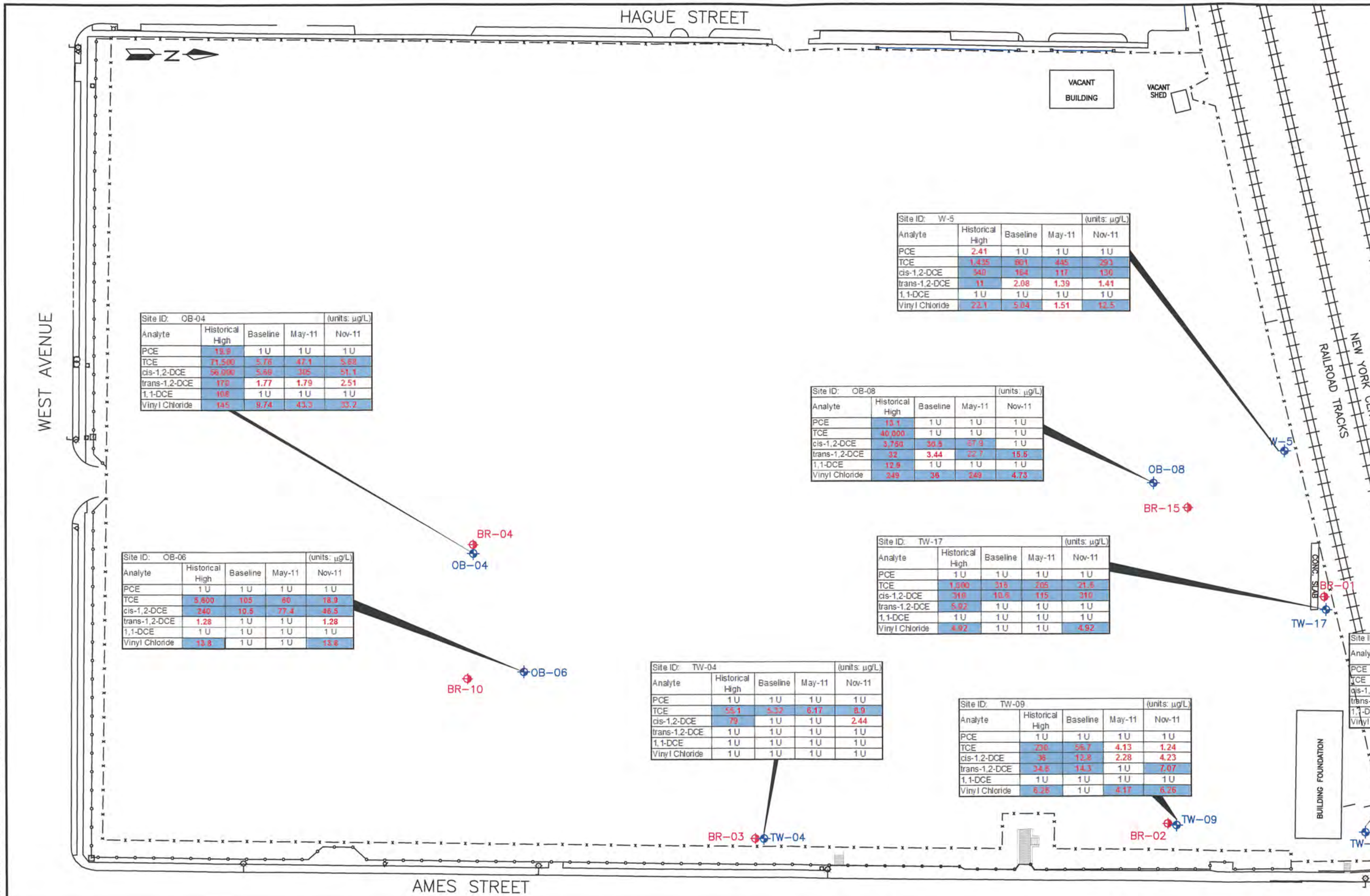


Site ID: OB-04				(units: µg/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	19.9	1 U	1 U	1 U
TCE	71,500	5.76	47.1	5.68
cis-1,2-DCE	56,000	5.69	305	51.1
trans-1,2-DCE	170	1.77	1.79	2.51
1,1-DCE	108	1 U	1 U	1 U
Vinyl Chloride	145	9.74	43.3	33.2

Site ID: W-5				(units: µg/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	2.41	1 U	1 U	1 U
TCE	1,435	601	445	293
cis-1,2-DCE	340	164	117	130
trans-1,2-DCE	11	2.08	1.39	1.41
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	22.1	5.04	1.51	12.5

Site ID: OB-08				(units: µg/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	13.1	1 U	1 U	1 U
TCE	40,000	1 U	1 U	1 U
cis-1,2-DCE	3,750	30.5	67.9	1 U
trans-1,2-DCE	32	3.44	22.7	15.5
1,1-DCE	12.9	1 U	1 U	1 U
Vinyl Chloride	249	36	249	4.73

Site ID: OB-06				(units: µg/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	1 U	1 U	1 U	1 U
TCE	5,600	105	60	18.9
cis-1,2-DCE	240	10.5	77.4	46.5
trans-1,2-DCE	1.28	1 U	1 U	1.28
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	13.8	1 U	1 U	13.8

Site ID: TW-17				(units: µg/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	1 U	1 U	1 U	1 U
TCE	1,000	316	205	21.6
cis-1,2-DCE	310	10.6	115	310
trans-1,2-DCE	5.92	1 U	1 U	1 U
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	4.92	1 U	1 U	4.92

Site ID: TW-04				(units: µg/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	1 U	1 U	1 U	1 U
TCE	55.1	5.32	6.17	8.9
cis-1,2-DCE	79	1 U	1 U	2.44
trans-1,2-DCE	1 U	1 U	1 U	1 U
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	1 U	1 U	1 U	1 U

Site ID: TW-09				(units: µg/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	1 U	1 U	1 U	1 U
TCE	230	56.7	4.13	1.24
cis-1,2-DCE	36	12.8	2.28	4.23
trans-1,2-DCE	34.6	14.3	1 U	7.07
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	6.26	1 U	4.17	6.26

Site ID: TW-20				(units: µg/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	1 U	1 U	1 U	1 U
TCE	88.8	65.9	65	88.8
cis-1,2-DCE	8.3	2.34	2.86	8.3
trans-1,2-DCE	1 U	1 U	1 U	1 U
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	1.0 U	1 U	1 U	1 U

LEGEND

- OVERBURDEN MONITORING WELL (OB, MW, TW, W)
- BEDROCK MONITORING WELL (BR)

DCE	DICHLOROETHENE
PCE	TETRACHLOROETHENE (PERCHLOROETHENE)
TCE	TRICHLOROETHENE
J	ESTIMATED VALUE
U	NON DETECT
NS	NOT SAMPLED
µg/L	MICROGRAMS PER LITER

RESULTS ABOVE NYSDEC CLASS GA STANDARD

SITE ID

Site ID: OB-XX	NYSDEC CLASS GA groundwater standard	(units:ug/L)	
Analyte		MAY 08	DATE SAMPLED
PCE	5	1 U	NOT DETECTED AT THE INDICATED QUANTITATION LIMIT
TCE	5	1 U	
cis-1,2-DCE	5	41.4	DETECTED
trans-1,2-DCE	5	8.07	
1,1-DCE	5	NS	NOT SAMPLED
Vinyl Chloride	2	47.8	

NOTE: HISTORICAL HIGH OBTAINED FROM DATA FROM THE TIME FRAMES OF ACTIVE REMEDIATION OCT/NOV 2000 TO PRESENT.

BASELINE IS THE MAY 2010 EVENT CONDUCTED PRIOR TO THE EXPANDED ACCELERATED BIOREMEDIATION APPLICATION.

0 80'

SCALE: 1"=80'

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

amec

CLIENT: ABB

TITLE: VOCs IN OVERBURDEN MONITORING WELLS
ANNUAL REPORT 2011
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV: NA	PROJ. NO.: 3031-05-2006
CHK: JD	DATE: 03-15-12	DWG NO. NA
SCALE:	1" - 80'	FIGURE. NO.: 2

HAGUE STREET

WEST AVENUE

AMES STREET

VACANT BUILDING

VACANT SHED

N/F NEW YORK CENTRAL RAILROAD

RAILROAD TRACKS

BUILDING FOUNDATION

LEGEND

- OVERBURDEN MONITORING WELL (OB, MW, TW, W)
- BEDROCK MONITORING WELL (BR)
- DCE DICHLOROETHENE
- PCE TETRACHLOROETHENE (PERCHLOROETHENE)
- TCE TRICHLOROETHENE
- J ESTIMATED VALUE
- U NON DETECT
- NS NOT SAMPLED
- µg/L MICROGRAMS PER LITER
- RESULTS ABOVE NYSDEC CLASS GA STANDARD

SITE ID	NYSDEC CLASS GA groundwater standard	(units:ug/L)
Site ID: BR-XX		MAY 08 — DATE SAMPLED
Analyte		
PCE	5	1 U — NOT DETECTED AT THE INDICATED QUANTITATION LIMIT
TCE	5	1 U
cis-1,2-DCE	5	41.4 — DETECTED
trans-1,2-DCE	5	8.07
1,1-DCE	5	NS — NOT SAMPLED
Vinyl Chloride	2	47.8

NOTE: HISTORICAL HIGH OBTAINED FROM DATA FROM THE TIME FRAMES OF ACTIVE REMEDIATION OCT/NOV 2000 TO PRESENT.

BASELINE IS THE MAY 2010 EVENT CONDUCTED PRIOR TO THE EXPANDED ACCELERATED BIOREMEDIATION APPLICATION.

Site ID: BR-04				(units: ug/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	1.8	1 U	1 U	1 U
TCE	10,000	325	1 U	4.29
cis-1,2-DCE	6,410	321	1 U	5.02
trans-1,2-DCE	147	11.7	1 U	1 U
1,1-DCE	21.3	1.37	1 U	1 U
Vinyl Chloride	32.2	1 U	1 U	1 U

Site ID: BR-15				(units: ug/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	1 U	1 U	1 U	1 U
TCE	6,590	167	1.74	1.01
cis-1,2-DCE	1,390	123	27.3	8.81
trans-1,2-DCE	43.8	2.12	1 U	1 U
1,1-DCE	12.8	1 U	1 U	1 U
Vinyl Chloride	195	3.11	25.9	10.8

Site ID: BR-01				(units: ug/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	1 U	1 U	1 U	1 U
TCE	551	9.73	2.05	1 U
cis-1,2-DCE	560	12.8	14.6	41.6
trans-1,2-DCE	20.6	2.02	1.03	1 U
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	3.61	1 U	1 U	3.61

Site ID: BR-10				(units: ug/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	2.94	1.72	1.36	1.35
TCE	8,700	277	725	417
cis-1,2-DCE	1,700	77.3	312	231
trans-1,2-DCE	82.6	14	26.3	25.3
1,1-DCE	4.7	1 U	1 U	1 U
Vinyl Chloride	18.1	1 U	2.79	2.87

Site ID: BR-03				(units: ug/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	368	1 U	1 U	1 U
TCE	1,150	270	52.5	1 U
cis-1,2-DCE	99	3.15	75	37.4
trans-1,2-DCE	1.9	1 U	1 U	1 U
1,1-DCE	3.1	1 U	1 U	1 U
Vinyl Chloride	1.0 U	1 U	1 U	1 U

Site ID: BR-02				(units: ug/L)
Analyte	Historical High	Baseline	May-11	Nov-11
PCE	1.32	1 U	1 U	1 U
TCE	7,000	821	237	2230
cis-1,2-DCE	13,100	186	66.3	483
trans-1,2-DCE	154	21.9	8.89	24.6
1,1-DCE	156	1.76	1 U	4.35
Vinyl Chloride	68.1	2.25	1 U	8.25

BR-04 OB-04 BR-10 OB-06 BR-03 TW-04 BR-02 TW-09 OB-08 BR-15 W-5 BR-01 TW-17 TW-20

0 80'

SCALE: 1"=80'

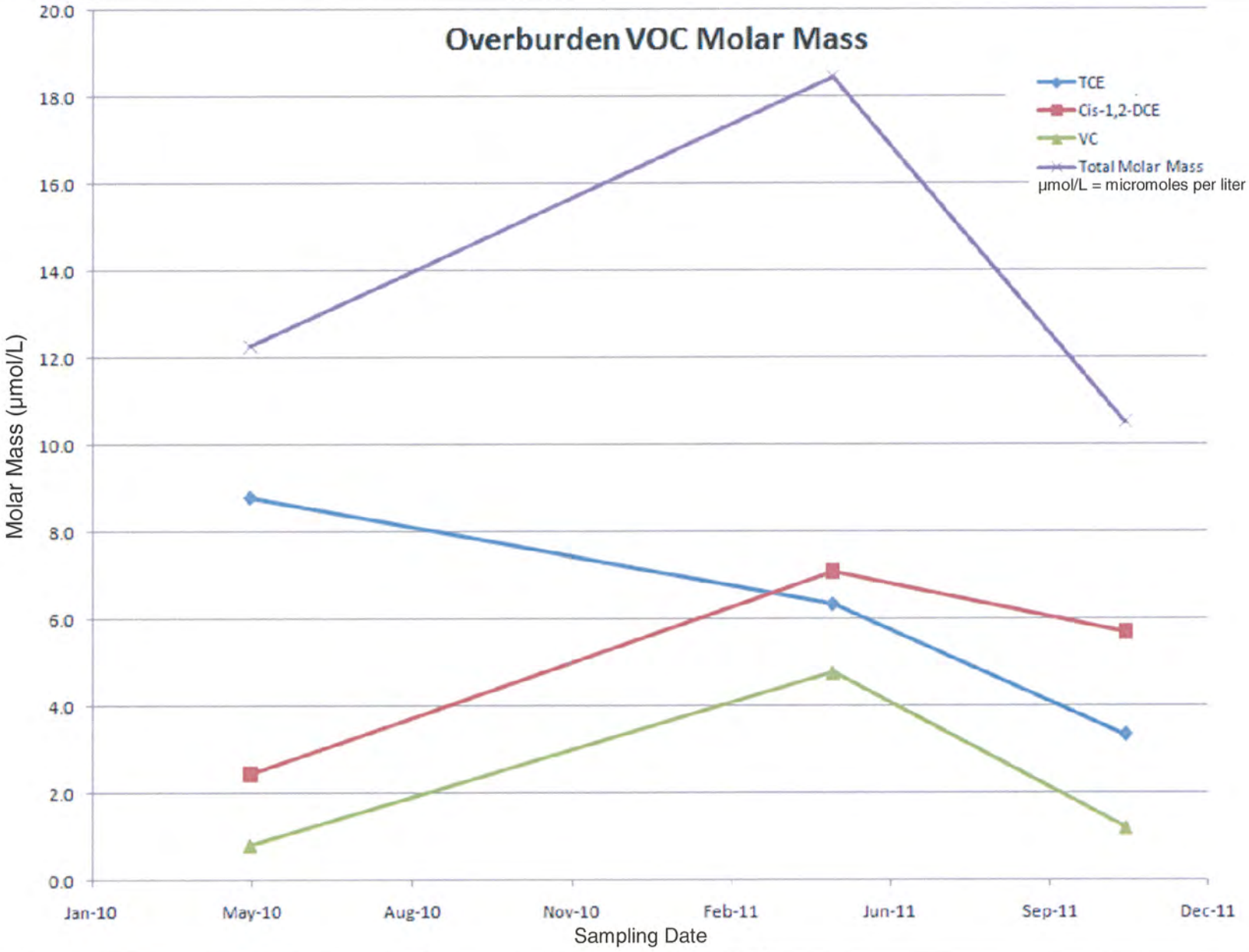
AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE: VOCs IN BEDROCK MONITORING WELLS
ANNUAL REPORT 2011
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
	NA	3031-05-2006
CHK: JD	DATE: 02-13-12	DWG NO. NA
SCALE: 1" - 80'		FIGURE. NO.: 3

P:\projects\2CADD**2011\Environmental\30311112014 rochester\3031052006 - Rochester\2011 Annual Report\3031052006_FIG3_ANNUAL_2011_VOCs BR w-nov data.dwg Mar. 06, 2012, rachel.everence



AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, TN 37932

Prepared by/Date: CRW 1/27/12 (RLW)

Checked by/Date: KJD 1/27/12 KJD

FIGURE 4: OVERBURDEN MOLAR MASS GRAPH
FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

HAGUE STREET

WEST AVENUE

AMES STREET

VACANT BUILDING

VACANT SHED

N/F NEW YORK CENTRAL RAILROAD

RAILROAD TRACKS

CONC. SLAB

BUILDING FOUNDATION

LEGEND

520 — CONTOUR LINE 1' INTERVAL

OB–07 WELL ID

MONITORING WELL LOCATION (INCLUDES MW, W, TW, OB)

528.18 WATER LEVEL ELEVATION (feet)

OB–04 528.86

OB–06 528.84

OB–08 526.26

W–5 527.47

TW–04 528.42

TW–17 525.20

TW–09 522.66

TW–20 521.49

528 527 526 525 524 523 522

0 80'

SCALE: 1"=80'

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:
OVERBURDEN POTENTIOMETRIC SURFACE MAP
MAY 2011 SAMPLING EVENT - ANNUAL REPORT 2011
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR: RDE	REV: NA	PROJ. NO.: 3031-05-2006
CHK: JD	DATE: 02-13-12	DWG NO. NA
SCALE: 1" - 80'		FIGURE. NO.: 5

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HAGUE STREET

WEST AVENUE

AMES STREET

VACANT BUILDING

VACANT SHED

BUILDING FOUNDATION

CONC. SLAB

N/F NEW YORK CENTRAL RAILROAD RAILROAD TRACKS

BR-04
515.92

BR-10
515.93

BR-03
527.84

BR-02
511.10

BR-15
514.91

BR-01
519.47

LEGEND

BR-01 WELL ID

BEDROCK WELL LOCATION

519.19 WATER LEVEL ELEVATION (feet)

0 80'

SCALE: 1"=80'

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:
BEDROCK GROUNDWATER ELEVATIONS
MAY 2011 SAMPLING EVENT - ANNUAL REPORT 2011
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
	NA	3031-05-2006
CHK:	DATE:	DWG NO.
	02-13-12	NA
SCALE:		FIGURE. NO.:
1" - 80'		6

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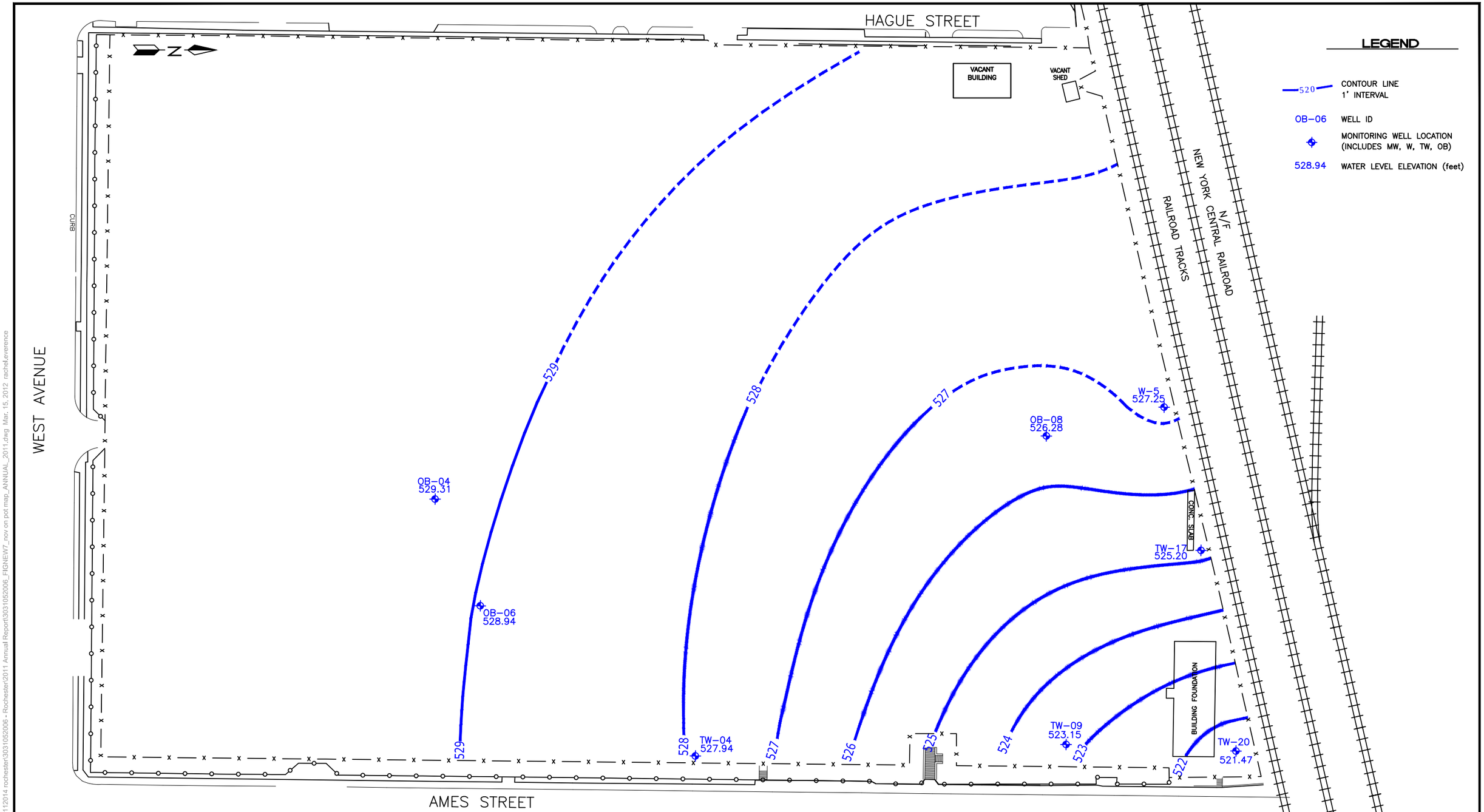

0 80'

SCALE: 1"=80'

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:
OVERBURDEN POTENTIOMETRIC SURFACE MAP
NOVEMBER 2011 SAMPLING EVENT - ANNUAL REPORT 2011
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV: NA	PROJ. NO.: 3031-05-2006
CHK: JD	DATE: 03-15-12	DWG NO. NA
SCALE: 1" - 80'		FIGURE. NO.: 7

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HAGUE STREET

WEST AVENUE

AMES STREET

VACANT BUILDING

VACANT SHED

N/F NEW YORK CENTRAL RAILROAD RAILROAD TRACKS

CONC. SLAB

BUILDING FOUNDATION

BR-04
515.04

BR-10
515.08

BR-03
527.44

BR-15
513.59

BR-01
519.80

BR-02
510.61

LEGEND

BR-01 WELL ID

BEDROCK WELL LOCATION

519.19 WATER LEVEL ELEVATION (feet)

0 80'

SCALE: 1"=80'

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:
BEDROCK GROUNDWATER ELEVATIONS
NOVEMBER 2011 SAMPLING EVENT - ANNUAL REPORT 2011
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
	NA	3031-05-2006
CHK: JD	DATE: 02-13-12	DWG NO. NA
SCALE: 1" - 80'		FIGURE. NO.: 8

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APPENDIX B

PERIODIC REVIEW REPORT

APPENDIX B

PERIODIC REVIEW REPORT

Executive Summary

The Site was the location of the former Taylor Instruments facility that was operated from 1904 to 1994 under a variety of owners. In 1993 Combustion Engineering (CE) closed the facility. The Site is currently vacant. In 1997 a Voluntary Clean-up Agreement (VCA) was executed between CE and New York State Department of Environmental Conservation (NYSDEC) (VCA Index #B8-0508-97-02, NYSDEC, 1997).

Following extensive soil excavation, filling and capping, and other remedial activities, a groundwater remedy for chlorinated volatile organic compounds (VOCs) was implemented from January 2001 to May 2006. This included an on-site remedial treatment system which consisted of a dual-phase vacuum extraction (DPVE) and bedrock groundwater extraction and treatment system (System).

Upon reaching the conclusion that the System had reached asymptotic contaminant removal rates, in July 2006 AMEC Environment & Infrastructure, Inc. (AMEC) (formerly MACTEC Engineering and Consulting, Inc. [MACTEC]) initiated a pilot-scale application of Hydrogen Release Compound (HRC) Advanced® near monitoring wells OB-08 in the North Trichloroethene (TCE) Source Area and OB-04 in the South TCE Source Area of the Site to evaluate the effectiveness of HRC Advanced® in accelerating the biodegradation of the site contaminants of concern (COCs) in lieu of further operation of the System. The System was shut down prior to the pilot test and remained off thereafter to optimize reducing conditions after implementation of the pilot application. The HRC Advanced® was effective in reducing TCE contamination in the overburden groundwater within the North and South TCE Source Areas. The results from ongoing post-pilot test monitoring also indicate that reducing conditions still exist and are conducive for continued accelerated bioremediation.

Following NYSDEC approval of MACTEC's *Revised Work Plan for Accelerated Bioremediation and Permanent Decommissioning of the Remediation Treatment System* (MACTEC, 2010a) in 2010, the System was decommissioned, an expanded application of 3-D Microemulsion® (3DMe®, formerly HRC Advanced®) was implemented, and post-closure monitoring of natural attenuation was implemented starting in 2011. Unless otherwise agreed to by NYSDEC, contaminant conditions will continue to be monitored until groundwater concentrations of the COCs are at or

below NYSDEC Class GA Standards. Decommissioning included removing all above-ground components of the remedial treatment system, plugging the ends of all underground system piping with silicon seal, and abandoning all wells (extraction, monitoring, and vent wells) except for the 14 monitoring wells (BR-01, BR-02, BR-03, BR-04, BR-10, BR-15, OB-04, OB-06, OB-08, TW-04, TW-09, TW-17, TW-20, and W-5) that are to be included in the post-closure natural attenuation monitoring. Figure 1 (Attachment A) depicts the former and existing monitoring wells. In October 2010, AMEC completed the expanded accelerated bioremediation application using 3DMe® in the vicinities of the remaining source area overburden monitoring wells and along the eastern portion of the Site.

Also in cooperation with the NYSDEC and the New York State Department of Health in 2010, ABB agreed to investigate sub-slab vapor and indoor air (SSIA) at eight residences near previous soil vapor sample collection points beneath Ames Street (i.e., residences at 64, 70, and 80 Ames Street; 195, 215, and 216 Danforth Street; and 7 and 15 Lynchford Park B). Based on the review of results from the SSIA investigation, ABB installed a sub-slab depressurization (SSD) system to mitigate sub-slab vapor at the 80 Ames/215 Danforth duplex residences.

Complete details of the system decommissioning, 3DMe® injection, and SSD system installation were provided in the *Construction Completion Report* (CCR) (MACTEC, 2010b) which was approved by NYSDEC on February 16, 2011.

Overburden and bedrock monitoring wells located on the Site have been sampled regularly from 2001 to 2011. Analytical data from the most recent November 2011 groundwater sampling event indicates that while certain COCs remain above the NYSDEC Class GA drinking water standards, overall declines of COC concentrations have been observed in most Site monitoring wells.

During the past reporting period, no areas of non-compliance were noted. Additionally, no changes to the *Soil Management Plan* (MACTEC, 2005), the revised *Operations, Maintenance, and Monitoring* (OM&M) *Manual* (MACTEC, 2010c) or frequency of Periodic Review Reports (PRR) submittals are recommended. The requirements for discontinuing the Site management have not yet been met.

Site Overview

The Site is located at 95 Ames Street in Rochester, New York. The approximately 14-acre Site is vacant, containing a fabricated building that previously housed the System as well as a second small storage shed. The Site is mostly paved and is surrounded by a chain link fence. North of the Site are a railroad line and a commercial/industrial property; to the east across Ames Street are a food processing facility, residences, and a community center; to the south across West Avenue are residences; and to the west across Hague Street is Rochester Gas and Electric. Figure 2 (Attachment A) depicts the current Site layout.

Prior to Site remediation, Site assessments identified the following contaminants:

Site Contamination

- Mercury and TCE were the principal site contaminants present in Site soils.
- VOCs were being released from the North and South TCE Source Areas to soil and bedrock groundwater at concentrations exceeding groundwater quality standards. TCE was the predominant site-related VOC in overburden and bedrock groundwater samples.
- Soil gas samples collected from downgradient site perimeter locations contained TCE along with tetrachloroethene and dichloroethene at less frequent detections and lower concentrations.
- TCE and its breakdown products were found at several locations in on-site sewers; they were the only VOCs detected. Mercury was detected at low levels in each of the water samples obtained from on-site sewer locations.

Complete details on the nature and extent of contamination prior to Site remediation were provided in the *Final Investigative Report* (Harding Lawson Associates, 1999).

Remedial Program

Comprehensive remedial actions implemented at the Site were previously detailed in the *Final Engineering Report, On-Site Storm Sewers* (Harding Lawson Associates, 2000a) [2000 FER], and the *Final Engineering Report* (MACTEC, 2003) [2003 FER]. The FER also contained the *Soil Management Plan* (MACTEC, 2005) which contains details on the Site engineering and

institutional controls that have been recorded at the Site. These reports were all approved by NYSDEC.

Subsequent to the 2003 FER, the NYSDEC issued an *Assignable Release and Covenant Not to Sue* (AR-CNTS) (NYSDEC, 2005), subject to implementation of an Operations and Maintenance (O&M) Plan that acknowledged the satisfactory implementation of all Site remedial actions. The AR-CNTS indicated that:

> *"…no further investigation or response will be required at the Site respecting the Existing Contaminations to render the Site safe to be used for the Contemplated Uses." … "The Department, therefore, hereby releases,… Volunteer for the further investigation and remediation of the Site, based on the release of threatened release of any Existing Contamination, provided that … Volunteer pursue to completion the Department-approved O&M Plan…"*

The Site is currently in post-closure groundwater monitoring. Fourteen remaining groundwater monitoring wells are sampled semi-annually for analysis of the six primary contaminants of concern remaining at the Site: TCE; tetrachloroethene; cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); 1,1-dichloroethene (1,1-DCE); and vinyl chloride by Environmental Protection Agency (EPA) Method 8260B. Additionally, the groundwater samples will be tested for the full suite of 8260B constituents once every five years and prior to ending monitoring at any specified well. Unless otherwise agreed to by NYSDEC, contaminant conditions will continue to be monitored until groundwater concentrations of the COCs are at or below the NYSDEC Class GA Standards.

Complete details of the remedial program were provided in the April 2000 *Remedial Work Plan* (Harding Lawson Associates 2000b), the *Final Engineering Report* (MACTEC, 2003), and the CCR (MACTEC, 2010b).

Evaluation of Remedy Performance, Effectiveness, and Protectiveness

The most current assessment of the effectiveness of the final Site remedial action is presented in the *2011 Annual Progress Report and Remedial Progress Evaluation* (AMEC, 2012).

Institutional and Engineering Control (IC/EC) Plan Compliance Report

Specific details on IC/ECs for the Site were provided in the *Remedial Work Plan* (Harding Lawson Associates, 2000b), the *Soil Management Plan* (MACTEC, 2005), and the revised OM&M Manual (MACTEC, 2010c). Certification of the IC/ECs is provided in the NYSDEC-approved certification form (Attachment B).

Monitoring Plan Compliance Report

The scope of the May and November 2011 semi-annual monitoring events, as well as future post-closure monitoring events, is provided in the revised OM&M Manual (MACTEC, 2010c). A summary of recent monitoring, comparisons with remedial objectives, and conclusions and recommendations are provided in the *2011 Annual Progress Report and Remedial Progress Evaluation* (AMEC, 2012). AMEC has not identified deficiencies with the monitoring plan.

Operation and Maintenance (O&M) Plan Compliance Report

The original Site O&M Manual (Harding ESE, 2001) governed all sampling events prior to the May 2011 monitoring event. The components of the plan included details of the DPVE System, including System maintenance; Site health and safety; Site environmental sampling; and reporting and notification requirements. The revised OM&M Manual (MACTEC, 2010c), which governs OM&M activities beginning in 2011, was approved by the Department on March 3, 2011. The components of the revised OM&M Manual include Site groundwater monitoring, SSD system operations and maintenance, ICs/ECs, and reporting and certification requirements.

O&M activities completed during the 2011 reporting period included two site-wide groundwater sampling events; yearly inspection of a SSD system at an off-site residential duplex; and the submittal of the 2011 Annual Progress Report (AMEC, 2012) to NYSDEC. The yearly inspection of the SSD system at the off-site residential duplex located at 80 Ames Street/215 Danforth Street was conducted on October 31, 2011 by the installation contractor, Mitigation Tech (National Environmental Health Association National Radon Proficiency Program ID certification #100722). Mitigation Tech certified that the SSD system is effectively maintaining sub-slab depressurization. The inspection report is included as Attachment C. AMEC has not identified deficiencies with the revised OM&M Manual (MACTEC, 2010c).

Overall PRR Conclusions and Recommendations

Compliance with the revised Site O&M Manual (MACTEC, 2010c) including performance and effectiveness of the Site remedy is detailed in the 2011 Annual Progress Report (AMEC, 2012). As indicated in that report, a comparison of analytical data from the 27 sampling events that occurred in 2001-2011 provides an evaluation of the site remedial progress. The following overall conclusions and recommendations have been reached in this remedial progress evaluation:

- Following shutdown of the remedial treatment system in 2006 and subsequent decommissioning in 2011, overall contaminant levels in the Site monitoring wells have not demonstrated significant rebound effects, and overall declines remain evident.

- In October 2010, AMEC completed an expanded accelerated bioremediation application using 3DMe® as the final required active Site remediation in the vicinities of the remaining source area overburden monitoring wells and select perimeter monitoring wells in which concentrations of COCs exceeded NYSDEC Class GA Standards. By accelerating the biodegradation of COCs in the overburden groundwater, it is expected that the ongoing overall decreases in COC concentrations in all downgradient locations, as well as in the bedrock groundwater, will continue at a more rapid rate.

- While certain COCs remain above the NYSDEC Class GA standards, overall declines of COC concentrations have been observed in most site monitoring wells. The greatest decrease has been within the two former source areas, where TCE in overburden monitoring well OB-04 and OB-08 has decreased by more than 99 percent from the historical high for each respective well.

- After the expanded accelerated bioremediation application of 3DMe® in the overburden groundwater in 2010, the total COC molar mass in overburden monitoring wells increased from 12.3 micro-moles per liter (µmole/L) prior to the injection to 18.5 µmole/L in May 2011, six months after the injection. This increase is typical for the initial months following a 3DMe® injection, as the 3DMe® causes contaminants to de-sorb from the soil particles in the saturated zone matrix, thus increasing the available contaminant mass in the groundwater. However, in November 2011 the total molar mass in these wells dropped to 10.5 µmole/L, a 44% decrease from the May event. The molar mass values are depicted on Figure 4 (Appendix A of the annual report). These decreases in molar mass indicate that the 3DMe® has enhanced contaminant biodegradation.

- The 3DMe® application has not yet significantly affected bedrock contaminant concentrations; however, as the enhanced contaminant biodegradation in the overburden groundwater continues, it is expected that the ongoing overall decreases in COC concentrations in the bedrock groundwater will continue at a more rapid rate.

- Groundwater monitoring events will continue to be conducted semi-annually on all 14 remaining monitoring wells. Groundwater samples will be analyzed for the six primary COCs remaining at the Site: TCE; PCE; cis-1,2-DCE; trans-1,2-DCE; 1,1-DCE; and vinyl chloride. These VOCs will be analyzed using EPA Method 8260B. Additionally, as requested by NYSDEC in an October 27, 2010 email (NYSDEC, 2010), the groundwater samples will be analyzed for the full suite of 8260B constituents once every five years and prior to ending monitoring at any specified well. Results of the post-closure monitoring will be provided to NYSDEC in subsequent annual reports. Unless otherwise agreed to by NYSDEC, contaminant conditions will continue to be monitored until groundwater concentrations of the COCs are at or below the NYSDEC Class GA Standards.

- In September 2010, ABB installed an SSD system to mitigate vapors beneath the basement at the 80 Ames Street/215 Danforth Street duplex as a precautionary measure. The yearly SSD system inspection and maintenance was performed by the installation contractor Mitigation Tech on October 31, 2011 and Mitigation Tech certified that the SSD System is effectively maintaining sub-slab depressurization. Inspections will continue to be performed by Mitigation Tech annually.

References

AMEC, 2012. *2011 Annual Progress Report and Remedial Progress Evaluation*, Former Taylor Instruments Site, Rochester, New York. Prepared for ABB, Inc. (January.)

Harding ESE, 2001. O&M Manual (March).

Harding Lawson Associates, 1999. *Final Investigative Report, Taylor Instruments Site, Rochester, New York.* Prepared for to the New York State Department of Environmental Conservation (March).

Harding Lawson Associates, 2000a. *Final Engineering Report, On-Site Storm Sewers, Former Taylor Instruments Site, Rochester, New York.* Prepared for Combustion Engineering (January).

Harding Lawson Associates, 2000b. *Remedial Work Plan, Taylor Instruments Site, 95 Ames Street, Rochester, New York.* Prepared for Combustion Engineering (April).

MACTEC, 2003. *Final Engineering Report, Former Taylor Instruments Site, Rochester, New York.* Prepared for Combustion Engineering (September).

MACTEC, 2005. *Soil Management Plan, Former Taylor Instruments Facility, 95 Ames Street, Rochester, New York 14611.* Prepared for Combustion Engineering (April).

MACTEC, 2010a. *Revised Work Plan for Accelerated Bioremediation and Permanent Decommissioning of the Remedial Treatment System, Former Taylor Instruments Site, 95 Ames Street in Rochester, New York.* Prepared for the New York State Department of Environmental Conservation (June 11).

MACTEC, 2010b. *Construction Completion Report, Former Taylor Instruments Site, Monroe County, New York.* Prepared for the New York State Department of Environmental Conservation (December).

MACTEC, 2010c. *Operations, Maintenance, and Monitoring Manual, Rev. 1, Former Taylor Instruments Site, Monroe County, New York*. Prepared for the New York State Department of Environmental Conservation.

NYSDEC, 1997. Voluntary Cleanup Agreement regarding the Taylor Instruments Site, Number B8-0508-97-02 (November).

NYSDEC, 2005. Letter to Ms. Jean H. McCreary with Nixon Peabody LLC (September 2).

NYSDEC, 2010. Email from Mr. Frank Sowers with the New York State Department of Environmental Conservation to Mr. Ricky A. Ryan with MACTEC Engineering and Consulting, Inc. (October 27).

Acronym List

2000 FER	Final Engineering Report, On-Site Storm Sewers (Harding Lawson Associates, 2000a)
2003 FER	Final Engineering Report (MACTEC, 2003)
3DMe®	3D Microemulsion®
µmole/L	micromole per liter
AMEC	AMEC Environment & Infrastructure, Inc.
AR-CNTS	Assignable Release and Covenant Not to Sue
CCR	*Construction Completion Report*
CE	Combustion Engineering
COC	contaminant of concern
1,1-DCE	1,1-dichloroethene
cis-1,2-DCE	cis-1,2-dichloroethene
trans-1,2-DCE	trans-1,2-dichloroethene
DPVE	dual-phase vacuum extraction
EPA	Environmental Protection Agency
HRC	Hydrogen Release Compound
IC/EC	institutional and engineering control
MACTEC	MACTEC Engineering and Consulting, Inc.
NYSDEC	New York State Department of Environmental Conservation
O&M	operation and maintenance
OM&M	operations, maintenance, and monitoring
PRR	Periodic Review Report
Site	location of the former Taylor Instruments facility
SSD	sub slab depressurization
SSIA	sub-slab vapor and indoor air
System	DPVE and bedrock groundwater extraction and treatment system
TCE	trichloroethene
VCA	Voluntary Clean-up Agreement
VOC	volatile organic compound

Attachment A

Figures

HAGUE STREET

WEST AVENUE

AMES STREET

FORMER SOUTH TCE SOURCE AREA

FORMER NORTH TCE SOURCE AREA

VACANT BUILDING

VACANT SHED

BUILDING FOUNDATION

CONC. SLAB

NEW YORK CENTRAL RAILROAD
N/F
RAILROAD TRACKS

LEGEND

- RAILROAD TRACKS
- CHAIN LINK FENCE
- WROUGHT IRON FENCE
- GUARD RAIL
- BEDROCK MONITORING WELL (BR)
- OVERBURDEN MONITORING WELL (OB, MW, TW, W)
- FORMER BEDROCK EXTRACTION WELL (BREW)
- FORMER DUAL-PHASE VACUUM EXTRACTION WELL (DPVE)
- FORMER VENT WELL
- FORMER BEDROCK MONITORING WELL (BR)
- FORMER OVERBURDEN MONITORING WELL (OB, MW, TW, W)

0 80'

SCALE: 1"=80'

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:
FORMER AND EXISTING WELL LOCATIONS
2011 PERIODIC REVIEW REPORT
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
	NA	3031-05-2006
CHK: JD	DATE: 02-13-2012	DWG NO. NA
SCALE: 1" - 80'		FIGURE. NO.: 1

Z:\projects\2CADD~2011\Environmental\30311\2014 rochester\3031052006 - Rochester\2011 Annual Report\3031052006_FIG1_PRR_2011.dwg Feb. 20, 2012 andrew.o.smith

HAGUE STREET

WEST AVENUE

AMES STREET

N

VACANT BUILDING

VACANT SHED

BUILDING FOUNDATION

CONC. SIGN

NEW YORK CENTRAL RAILROAD
N/F
RAILROAD TRACKS

BR-04
OB-04
BR-10
OB-06
BR-03
TW-04
BR-02
TW-09
TW-20
OB-08
BR-15
W-5
BR-01
TW-17

LEGEND

- RAILROAD TRACKS
- CHAIN LINK FENCE
- WROUGHT IRON FENCE
- GUARD RAIL
- BEDROCK MONITORING WELL (BR)
- OVERBURDEN MONITORING WELL (OB, MW, TW, W)

0 80'

SCALE: 1"=80'

Z:\projects\ZCAD\"2011\Environmental\3031112014 rochester\3031082006 - Rochester\2011 Annual Report\3031082006_FIG2_FRR_2011.dwg Feb., 20, 2012 andrew.o.smith

AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, Tennessee 37932

CLIENT: ABB

TITLE:
MONITORING WELLS FOR POST CLOSURE MONITORING
2011 PERIODIC REVIEW REPORT
FORMER TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK

DR:	REV:	PROJ. NO.:
	NA	3031-05-2006
CHK: JD	DATE: 02-13-2012	DWG NO. NA
SCALE: 1" - 80'		FIGURE. NO.: 2

Attachment B

NYSDEC-Approved Certification Form

95 AMES STREET CERTIFICATION

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. V00144

Site Name Former Taylor Instruments Facility

Site Address: 95 AMES STREET Zip Code: 14611
City/Town: Rochester
County: Monroe
Site Acreage: ~~47.0~~ 14.0 14.5

Reporting Period: February 14, 2011 to February 14, 2012

	YES	NO
1. Is the information above correct?	☐	☒
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☒	☐
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

The Department of Environmental Services of Monroe County, New York issued Sewer Use Permit No. 964 on November 9, 2011.

SITE NO. V00144 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
120.410-1-2	ABB, Inc. (Attn: John Conant)	Ground Water Use Restriction Landuse Restriction ~~O&M Plan~~ Soil Management Plan
~~120.42-1.4~~	~~Kevin Carter~~	~~O&M Plan~~

Box 4

Description of Engineering Controls

Parcel	Engineering Control
120.410-1-2	Cover System ~~Pump & Treat~~ Decommisioned in August 2010 as approved by NYSDEC in a letter dated 6/29/2010 Vapor Mitigation (future buildings)
~~120.42-1.4~~	~~Vapor Mitigation~~

Engineering Control Details for Site No. V00144

Parcel: 120.410-1-2

- Ground Water Use Restriction
- Landuse Restriction
- Soil Management Plan
- Cover System
- Vapor Mitigation (future buildings)
- Annual certification

~~**Parcel: 120.42-1.4**~~

~~Sub-slab depressurization system~~

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00144

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Melody Christopher (print name) at 5 Waterside Crossing, Windsor CT 06095, (print business address)

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Melody B. Christopher, ABB Inc. — Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

3/9/2012 — Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Ricky A. Ryan (print name) at 9725 Cogdill Road, Knoxville, TN 37932 (print business address)

am certifying as a Professional Engineer for the ABB Inc. (Owner or Remedial Party)

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date 5/15/12

80 AMES STREET/215 DANFORTH STREET
CERTIFICATION

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. V00144

Site Name Former Taylor Instruments Facility

Site Address: 95 AMES STREET Zip Code: 14611
City/Town: Rochester
County: Monroe
Site Acreage: ~~17.0~~ 14.0 14.5

Reporting Period: February 14, 2011 to February 14, 2012

	YES	NO
1. Is the information above correct?	☐	☒
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☒	☐
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

The Department of Environmental Services of Monroe County, New York issued Sewer Use Permit No. 964 on November 9, 2011 for 95 Ames Street.

SITE NO. V00144 Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
~~120.410-1-2~~	~~ABB, Inc. (Attn: John Gonant)~~	~~Ground Water Use Restriction~~ ~~Landuse Restriction~~ ~~O&M Plan~~
120.42-1.4	Kevin Carter	~~O&M Plan~~ Site Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
~~120.410-1-2~~	~~Cover System~~ ~~Pump & Treat~~ ~~Vapor Mitigation~~
120.42-1.4	Vapor Mitigation

Engineering Control Details for Site No. V00144

~~Parcel: 120.410-1-2~~
- ~~Ground Water Use Restriction~~
- ~~Landuse Restriction~~
- ~~Soil Management Plan~~
- ~~Cover System~~
- ~~Vapor Mitigation (future buildings)~~
- ~~Annual certification~~

Parcel: 120.42-1.4

Sub-slab depressurization system
Annual certification

Parcel: 120.42-1.4 is located at 80 Ames Street / 215 Danforth Street
Rochester, NY 14611

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00144

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Melody Christopher (print name) at 5 Waterside Crossing Windsor CT 06095 (print business address)

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Melody B. Christopher ABB Inc. — Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

3/9/2012 — Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Ricky A. Ryan (print name) at 9725 Cogdill Road, Knoxville, TN 37932 (print business address)

am certifying as a Professional Engineer for the ABB Inc. (Owner or Remedial Party)

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date 5/15/12

Attachment C

Mitigation Tech Inspection Report

mitigation tech *vapor intrusion specialists*

INSPECTION REPORT

November 16, 2011

Mr. Joe Deatherage, P.E.
Senior Engineer
AMEC E&I, Inc.
9725 Cogdill Rd.
Knoxville, TN 37932
Via email: joe.deatherage@amec.com

Re: ABB Rochester - Former Taylor Instruments
Project No. 3031052006-17 //// WO No. & PO No.: 201111918
Work site: 80 Ames St./215 Danforth St., Rochester, NY
Inspection Report for Sub-slab Depressurization System

For work completed October 31, 2011 per proposal December 31, 2010

1. Conducted a visual inspection of the complete System (e.g., vent fan, piping, warning device, labeling on systems, etc.): **SATISFACTORY**
2. Conducted an inspection of all surfaces to which vacuum is applied: **SATISFACTORY**
3. Inspected all components for condition and proper operation: **SATISFACTORY**
4. Identify and repair any leaks in accordance with Section 4.3.1(a) of the NYS DOH Guidance, with smoke tubes: **NO LEAKS OBSERVED**
5. Inspect the exhaust or discharge point to verify that no air intakes have been located nearby: **NO AIR INTAKES WITHIN TEN FEET**
6. Conduct an airstream velocity measurement: **SATISFACTORY**
7. Conduct pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the entire slab): **SATISFACTORY**
8. Interview an appropriate occupant or owner seeking comments and observations regarding the operation of the System: **SATISFACTORY**
9. Observe VOC readings from sample port: **NON-DETECT AT 100 PPB SCALE**

I certify that this system is effectively maintaining sub-slab depressurization.

Thank you.

Nicholas E. Mouganis

55 SHUMWAY ROAD, BROCKPORT, NEW YORK, 14420 * OFFICE/FAX 585-637-7430

APPENDIX C

TABLES

Table 1
Overburden Monitoring Wells with COCs Exceeding Class GA Standards – November 2011

2011 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

COC	Class GA Standard	Monitoring Well			
		OB-04	OB-06	OB-08	TW-04
PCE	5	1 U	1 U	1 U	1 U
TCE	5	**5.68**	**18.9**	1 U	**8.9**
cis-1,2-DCE	5	**51.1**	**46.5**	1 U	2.44
trans-1,2-DCE	5	2.51	1.28	**15.5**	1 U
1,1-DCE	5	1 U	1 U	1 U	1 U
Vinyl Chloride	2	**33.2**	**13.8**	**4.73**	1 U

COC	Class GA Standard	Monitoring Well			
		TW-09	TW-17	TW-20	W-5
PCE	5	1 U	1 U	1 U	1 U
TCE	5	1.24	**21.6**	**88.8**	**293**
cis-1,2-DCE	5	4.23	**310**	**8.3**	**130**
trans-1,2-DCE	5	**7.07**	1 U	1 U	1.41
1,1-DCE	5	1 U	1 U	1 U	1 U
Vinyl Chloride	2	**6.26**	**4.92**	1 U	**12.5**

All concentrations are in micrograms per liter.

Created by: CRW (CRW) on 11/16/11

Checked by: KJD (KJD) on 1/3/12

Notes: **Bold and shaded** values indicate detection exceeding Class GA Standards.
--- = not sampled
COC = contaminants of concern
DCE = dichloroethene
PCE = tetrachloroethene
TCE = trichloroethene
U = not detected at practical quantitation limit

Table 2
Bedrock Monitoring Wells with COCs Exceeding Class GA Standards – November 2011

2011 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

COC	Class GA Standard	Monitoring Well					
		BR-01	BR-02	BR-03	BR-04	BR-10	BR-15
PCE	5	1 U	1 U	1 U	1 U	1.35	1 U
TCE	5	1 U	**2,230**	1 U	4.29	**417**	1.01
cis-1,2-DCE	5	**41.6**	**483**	**37.1**	**5.02**	**231**	**8.81**
trans-1,2-DCE	5	1.03	**24.6**	1 U	1 U	**25.3**	1 U
1,1-DCE	5	1 U	4.35	1 U	1 U	1 U	1 U
Vinyl Chloride	2	**3.61**	**8.25**	1 U	1 U	**2.87**	**10.8**

All concentrations are in micrograms per liter.

Created by: CRW on 11/16/11

Checked by: KJD on 1/3/12

Notes: **Bold and shaded** values indicate detection exceeding Class GA Standards.
COC = contaminants of concern
DCE = dichloroethene
PCE = tetrachloroethene
TCE = trichloroethene
U = not detected at practical quantitation limit

Table 3
Summary of VOC Results for Existing Overburden Wells for the 2000-2011 Sampling Events

2011 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
OB-04	11/19/00	70,000	2,900	--	--	--
OB-04	03/24/01	150	3.2 J	--	--	--
OB-04	06/18/01	39,000	21,000	--	--	--
OB-04	09/01	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-04	12/17/01	71,500	56,000	170	108	10.2
OB-04	03/12/02	65,600	1,640	16.6	3.8	--
OB-04	06/09/02	3,650	554	--	--	--
OB-04	09/23/02	3,760	1,950	7.5	4.9	2
OB-04	12/09/02	46.3	5.5	--	--	--
OB-04	03/22/03	11.3	1.3	--	--	--
OB-04	06/13/03	41.5	6.7	--	--	--
OB-04	09/21/03	2,780	125	1.9	--	--
OB-04	12/14/03	23.3	3	--	--	--
OB-04	06/19/04	394	87.2	1.3	--	--
OB-04	12/05/04	626	124	1.6	--	--
OB-04	06/26/05	367	141	2.4	--	--
OB-04	12/03/05	385	139	1.14	--	--
OB-04	07/20/06	252	153	1.56	--	--
OB-04	12/06/06	1,920	892	--	--	1.19
OB-04	05/03/07	618	399	3.19	--	--
OB-04	12/13/07	109	1,350	5.43	2.19	95.1
OB-04	05/05/08	125	875	5.72	1.60	145
OB-04	11/06/08	44.9	258	2.80	--	114
OB-04	05/06/09	28.9	102	2.27	--	21.7
OB-04	10/21/09	32.8	59.6	--	--	49.8
OB-04	05/12/10	5.76	5.69	1.77	--	9.74
OB-04	05/03/11	47.1	304	1.79	--	43.3
OB-04	11/01/11	5.68	51.1	2.51	--	33.2
OB-06	11/17/00	2,600	60	--	--	--
OB-06 (DUP)	11/17/00	3,300	80 J	--	--	--
OB-06	03/21/01	540	--	--	--	--
OB-06	06/15/01	720	12 J	--	--	--
OB-06	09/13/01	5,600	240	9.0 J	--	--
OB-06	12/13/01	637	13.7	--	--	--
OB-06	03/08/02	526	7.8	--	--	--
OB-06	06/07/02	184	2.8	--	--	--
OB-06	09/20/02	386	10.1	--	--	--
OB-06	12/06/02	100	1.5	--	--	--
OB-06	03/20/03	84.9	1.5	--	--	--

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2011 Sampling Events

2011 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
OB-06	06/11/03	52.7	1.1	--	--	--
OB-06	09/18/03	242	2.6	--	--	--
OB-06	12/11/03	60	1	--	--	--
OB-06	06/17/04	38.6	--	--	--	--
OB-06	12/02/04	31.9	1.4	--	--	--
OB-06	06/26/05	37.1	1.8	--	--	--
OB-06	12/02/05	117	4.71	--	--	--
OB-06	07/21/06	60.5	2.59	--	--	--
OB-06	12/10/06	87.8	2.69	--	--	--
OB-06	05/03/07	66.3	4.85	--	--	--
OB-06	12/12/07	82.9	3.31	--	--	--
OB-06	05/03/08	72.6	3.90	--	--	--
OB-06	11/05/08	89.8	4.82	--	--	--
OB-06	05/05/09	78.3	6.03	--	--	--
OB-06	10/20/09	121	12.6	--	--	--
OB-06	05/11/10	105	10.5	--	--	--
OB-06	05/03/11	60	77.4	--	--	--
OB-06	11/01/11	18.9	46.5	1.28	--	13.8
OB-08	11/16/00	40,000	390 J	--	--	--
OB-08	03/20/01	29,000	390 J	--	--	--
OB-08	06/19/01	15,000	240 J	--	--	--
OB-08	03/12/02	15,750	208	8.6	2.7	--
OB-08	06/10/02	5,370	--	--	--	--
OB-08	09/24/02	5,440	110	3.6	--	--
OB-08	12/09/02	8,050	94.2	5	1.3	--
OB-08	03/24/03	3,480	37.3	2.2	--	--
OB-08	06/13/03	2,250	15.3	1.2	--	--
OB-08	09/22/03	2,780	32.1	3.1	--	--
OB-08	12/15/03	1,360	10.8	1.5	--	--
OB-08	06/20/04	725	13.1	2.5	--	--
OB-08	12/06/04	429	5.80	--	--	--
OB-08	06/29/05	570	3.3	--	--	--
OB-08	12/06/05	797	6.25	2.17	--	--
OB-08	07/21/06	890	7.85	3.91	--	--
OB-08	12/06/06	73.7	1,550	10.7	--	--
OB-08	05/03/07	2.48	3,750	29.6	12.7	3.08
OB-08	12/13/07	--	1,150	32.0	4.24	1.54
OB-08	05/05/08	--	41.4	8.07	--	47.8
OB-08	11/06/08	--	53.9	14.8	--	68.9
OB-08	05/06/09	--	42.5	10.2	--	83.8
OB-08	10/21/09	--	35.2	12.4	--	111
OB-08	05/12/10	--	30.5	3.44	--	36.0

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2011 Sampling Events

2011 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	TCE (μg/L)	cis-1,2-DCE (μg/L)	trans-1,2-DCE (μg/L)	1,1-DCE (μg/L)	Vinyl Chloride (μg/L)
OB-08	05/04/11	--	67.9	22.7	--	249
OB-08	11/02/11	--	--	15.5	--	4.73
TW-04	10/24/00	42	79	--	--	--
TW-04	03/22/01	14	16	--	--	--
TW-04	06/15/01	--	--	--	--	--
TW-04	09/14/01	27	38	--	--	--
TW-04	12/13/01	51.1	19.4	--	--	--
TW-04	03/05/02	51	3.7	--	--	--
TW-04	06/04/02	20.7	--	--	--	--
TW-04	09/17/02	21.2	7.1	--	--	--
TW-04	12/04/02	42.5	5.5	--	--	--
TW-04	03/18/03	--	--	--	--	--
TW-04	06/10/03	19.3	--	--	--	--
TW-04	09/16/03	29.2	3.1	--	--	--
TW-04	12/09/03	49.8	1.1	--	--	--
TW-04	06/15/04	12.7	--	--	--	--
TW-04	11/30/04	40.0	--	--	--	--
TW-04	06/24/05	9.20	1.7	--	--	--
TW-04	12/01/05	31.4	--	--	--	--
TW-04	07/18/06	27.9	--	--	--	--
TW-04	12/11/06	8.99	--	--	--	--
TW-04	05/03/07	4.66	--	--	--	--
TW-04	12/11/07	15.2	--	--	--	--
TW-04	05/03/08	4.40	--	--	--	--
TW-04	11/04/08	21.3	--	--	--	--
TW-04	05/04/09	4.78	--	--	--	--
TW-04	10/19/09	--	--	--	--	--
TW-04	05/11/10	5.32	--	--	--	--
TW-04	05/03/11	6.17	--	--	--	--
TW-04	11/01/11	8.9	2.44	--	--	--
TW-09	10/24/00	230	36	--	--	--
TW-09	03/27/01	120	1.9 J	--	--	--
TW-09	06/16/01	200	7.4	--	--	--
TW-09	09/16/01	150	9.6	--	--	--
TW-09	12/15/01	110	4	--	--	--
TW-09	03/06/02	55.4	2	--	--	--
TW-09	06/05/02	36.5	--	--	--	--
TW-09	09/19/02	91.5	4	--	--	--
TW-09	12/05/02	38	--	--	--	--
TW-09	03/19/03	--	--	--	--	--
TW-09	06/11/03	29.4	--	--	--	--
TW-09	09/17/03	77	6.4	--	--	--
TW-09	12/10/03	36.8	1.2	--	--	--

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2011 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
TW-09	06/16/04	43.1	1.0	--	--	--
TW-09	12/02/04	46.2	2.4	--	--	--
TW-09	06/24/05	48.2	1.7	--	--	--
TW-09	12/05/05	45.0	1.48	--	--	--
TW-09	07/18/06	56.7	1.35	--	--	--
TW-09	12/06/06	34.3	2.60	--	--	--
TW-09	05/03/07	31.2	3.01	1.46	--	--
TW-09	12/13/07	29.8	1.28	--	--	--
TW-09	05/05/08	50.5	4.70	4.87	--	--
TW-09	11/06/08	71.2	12.6	12.0	--	--
TW-09	05/06/09	72.1	32.6	32.0	--	5.83
TW-09	10/21/09	82.9	34.4	34.6	--	--
TW-09	05/12/10	56.7	12.8	14.3	--	--
TW-09	05/03/11	4.13	2.28	--	--	4.17
TW-09	11/02/11	1.24	4.23	7.07	--	6.26
TW-17	11/17/00	1,000	7.9 J	--	--	--
TW-17	03/23/01	530	--	--	--	--
TW-17	06/16/01	490	--	--	--	--
TW-17	09/14/01	740	--	--	--	--
TW-17	12/14/01	515	--	--	--	--
TW-17	03/05/02	339	--	--	--	--
TW-17	06/04/02	393	--	--	--	--
TW-17	09/18/02	666	--	--	--	--
TW-17	12/04/02	390	--	--	--	--
TW-17	03/18/03	379	--	--	--	--
TW-17	06/10/03	282	--	--	--	--
TW-17	09/16/03	435	--	--	--	--
TW-17	12/09/03	441	--	--	--	--
TW-17	06/15/04	280	--	--	--	--
TW-17	11/30/04	407	6.9	--	--	--
TW-17	06/24/05	340	1.0	--	--	--
TW-17	12/01/05	397	1.35	--	--	--
TW-17	07/18/06	410	2.04	--	--	--
TW-17	12/06/06	246	7.47	--	--	--
TW-17	05/02/07	253	5.87	--	--	--
TW-17	12/12/07	296	3.98	--	--	--
TW-17	05/04/08	477	4.19	--	--	--
TW-17	11/05/08	270	110	--	--	--
TW-17	05/05/09	332	6.46	--	--	--
TW-17	10/20/09	94	199	5.92	--	--
TW-17	05/11/10	316	10.6	--	--	--
TW-17	05/05/11	205	115	--	--	--
TW-17	11/03/11	21.6	310	--	--	4.92
TW-20	10/25/00	5.2	--	--	--	--
TW-20	03/27/01	12	--	--	--	--
TW-20	06/16/01	2.9 J	--	--	--	--

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2011 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
TW-20	09/14/01	--	--	--	--	--
TW-20	12/14/01	3.1	--	--	--	--
TW-20	03/06/02	2.4	--	--	--	--
TW-20	09/18/02	--	--	--	--	--
TW-20	12/04/02	11.6	--	--	--	--
TW-20	03/19/03	2.4	--	--	--	--
TW-20	06/10/03	--	--	--	--	--
TW-20	09/17/03	5.0	--	--	--	--
TW-20	12/10/03	14.8	--	--	--	--
TW-20	06/15/04	--	--	--	--	--
TW-20	12/01/04	--	--	--	--	--
TW-20	06/24/05	1.5	--	--	--	--
TW-20	12/01/05	6.32	--	--	--	--
TW-20	07/18/06	12.0	--	--	--	--
TW-20	12/06/06	13.2	--	--	--	--
TW-20	05/02/07	8.28	--	--	--	--
TW-20	12/11/07	4.58	--	--	--	--
TW-20	05/02/08	4.50	--	--	--	--
TW-20	11/04/08	23.0	3.47	--	--	--
TW-20	05/04/09	25.2	1.55	--	--	--
TW-20	10/19/09	78.8	5.50	--	--	--
TW-20	05/11/10	65.9	2.34	--	--	--
TW-20	05/04/11	65	2.86	--	--	--
TW-20	11/02/11	88.8	8.3	--	--	--
W-5	11/16/00	--	27	11	--	--
W-5	03/23/01	120	25	8.1	--	--
W-5	06/18/01	62	23	9.6	--	--
W-5	09/17/01	64	9.1	6.5	--	--
W-5 (DUP)	09/17/01	62	11	7.3	--	--
W-5	12/17/01	1,435	39.5	9	--	--
W-5 (DUP)	12/17/01	1,780	36.2	8.5	--	--
W-5	03/07/02	737	21.6	3.5	--	--
W-5 (DUP)	03/07/02	607	23.2	3.9	--	--
W-5	06/06/02	155	15.7	--	--	--
W-5 (DUP)	06/06/02	150	13.8	--	--	--
W-5	09/19/02	960	49.6	--	--	--
W-5 (DUP)	09/19/02	676	48.5	4.7	--	--
W-5	12/05/02	777	52	3.6	--	--
W-5 (DUP)	12/05/02	843	51.7	4	--	--
W-5	03/20/03	262	132	3.4	--	--
W-5 (DUP)	03/20/03	232	119	3.3	--	--
W-5	06/11/03	234	128	5	--	--
W-5 (DUP)	06/11/03	234	152	5.1	--	--
W-5	09/18/03	510	129	4	--	--

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2011 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
W-5 (DUP)	09/18/03	444	112	3.9	--	--
W-5	12/11/03	550	127	3.5	--	--
W-5 (DUP)	12/11/03	520	118	3.4	--	--
W-5	06/16/04	348	98.9	5.4	--	--
W-5 (DUP)	06/16/04	360	71.6	4.6	--	--
W-5	12/02/04	569	125	4.7	--	--
W-5 (DUP)	12/02/04	725	89.4	4.4	--	--
W-5	06/25/05	381	98.2	3.7	--	--
W-5 (DUP)	06/25/05	380	93.2	3.5	--	--
W-5	12/05/05	1,100	76.9	2.13	--	--
W-5 (DUP)	12/05/05	916	69.5	--	--	--
W-5	07/19/06	212	104	2.34	--	3.63
W-5 (DUP)	07/19/06	219	99.0	2.30	--	3.81
W-5	12/05/06	263	122	2.89	--	7.14
W-5	05/03/07	1,140	340	4.61	--	4.43
W-5 (DUP)	05/03/07	1,070	336	4.60	--	4.00
W-5	12/13/07	835	158	3.83	--	22.1
W-5 (DUP)	12/13/07	850	124	3.36	--	16.1
W-5	05/05/08	1,180	314	4.41	--	6.77 J
W-5 (DUP)	05/05/08	1,110	342	4.33	--	13.6 J
W-5	11/06/08	687	143	3.28	--	8.86
W-5 (DUP)	11/06/08	703	126	2.88	--	8.85
W-5	05/06/09	961	124	2.61	--	1.33
W-5 (DUP)	05/06/09	961	123	2.69	--	--
W-5	10/21/09	664	59.9	1.55	--	5.39 J
W-5 (DUP)	10/21/09	642	68.2	1.61	--	7.42
W-5	05/12/10	601	164	2.08	--	5.04
W-5 (DUP)	05/12/10	591	159	2.08	--	5.27
W-5	05/04/11	445	117	1.39	--	1.51
W-5 (DUP)	05/04/11	432	141	1.62	--	1.53
W-5	11/03/11	293	130	1.41	--	12.5
W-5 (DUP)	11/03/11	325	153	1.74	--	17.0

See notes at end of table.

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2011 Sampling Events

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Notes: -- = no detections
µg/L = micrograms per liter
3DMe® = 3-D Microemulsion®
1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
trans-1,2-DCE = trans-1,2-dichloroethene
DUP = duplicate
ID = identification
J = estimated value
NS = not sampled
TCE = trichloroethene
VOC = volatile organic compound

Prepared by C. Wolf CW on 1/18/12

Checked by J. Deatherage KJD on 1/20/12

Table 4
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2011 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-01	11/17/00	180	550	4.3 J	--	3.5 J
BR-01	03/21/01	320	34	2.2 J	--	--
BR-01 (DUP)	03/21/01	320	35	2.4 J	--	--
BR-01	06/16/01	270	59	4.4 J	--	--
BR-01	09/14/01	31	170	16	--	--
BR-01	12/14/01	63.8	77.5	2	--	--
BR-01	03/09/02	47.3	5.5	1.6	--	--
BR-01	06/08/02	85.7	10.1	3.2	--	--
BR-01	09/20/02	107	16	4	--	--
BR-01	12/07/02	14.3	83	3.8	--	--
BR-01	03/21/03	25.8	2.1	1	--	--
BR-01	06/12/03	60.9	4.6	2.8	--	--
BR-01	09/19/03	102	11.4	1.7	--	--
BR-01	12/12/03	127	61.7	20.6	--	--
BR-01	06/18/04	551	42	6.1	--	--
BR-01	12/03/04	65	4.3	1.4	--	--
BR-01	06/26/05	199	6.5	1.0	--	--
BR-01	12/02/05	1.12	36.2	1.10	--	--
BR-01	07/19/06	--	3.09	--	--	--
BR-01	12/08/06	--	3.73	--	--	--
BR-01	05/02/07	67.5	10.6	--	--	--
BR-01	12/10/07	--	70.6	4.33	--	--
BR-01	05/02/08	4.19	10.7	1.63	--	--
BR-01	11/04/08	--	98.7	2.23	--	--
BR-01	05/04/09	3.26	11.3	1.95	--	--
BR-01	10/19/09	--	6.92	--	--	--
BR-01	05/11/10	9.23	12.8	2.02	--	--
BR-01	05/04/11	2.05	14.6	1.03	--	--
BR-01	11/03/11	--	41.6	--	--	3.61
BR-02	11/18/00	1,800	540	31 J	--	--
BR-02	03/21/01	1,200	95	--	--	--
BR-02	06/17/01	1,000	94	27 J	--	--
BR-02	09/15/01	7,000	1,500	63	31 J	--
BR-02	12/15/01	6,500	1,830	59.8	30.3	19.6
BR-02	03/09/02	588	79.6	20.8	1.2	--
BR-02	06/08/02	568	122	2.2	--	--
BR-02	09/21/02	768	518	24.4	4.6	18.7
BR-02	12/07/02	694	172	29.8	--	5.6
BR-02	03/21/03	4,000	19,100	154	156	64.9
BR-02	06/13/03	710	17,900	120	122	68.1
BR-02	09/18/03	372	245	23.3	--	--
BR-02	12/12/03	324	58.2	18.2	--	--

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2011 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-02	06/18/04	450	257	33.8	2.8	2.3
BR-02	12/03/04	647	242	23.4	1.4	1.4
BR-02	06/27/05	163	29	9.1	--	--
BR-02	12/03/05	114	23.1	9.08	--	--
BR-02	07/19/06	120	16.9	8.29	--	--
BR-02	12/08/06	113	31.1	11.3	--	--
BR-02	05/02/07	409	118	15.2	1.26	--
BR-02	12/10/07	134	38.6	14.1	--	--
BR-02	05/02/08	153	74.2	14.0	--	--
BR-02	11/04/08	90.9	48.1	11.4	--	1.54
BR-02	05/04/09	88.1	142	20.5	1.00	1.19
BR-02	10/19/09	254	100	13.4	1.03	1.22
BR-02	05/11/10	821	186	21.9	1.76	2.25
BR-02	05/04/11	237	56.2	8.89	--	--
BR-02	11/02/11	2230	483	24.6	4.35	8.25
BR-03	11/18/00	440	99	1.2 J	2.2 J	--
BR-03	03/22/01	810	12 J	--	3.2 J	--
BR-03	06/15/01	500	20 J	--	--	--
BR-03	09/14/01	330	7.8 J	--	--	--
BR-03	12/13/01	780	7.6	--	2.2	--
BR-03	03/08/02	599	9.8	--	2.1	--
BR-03	06/07/02	854	19.7	--	2.8	--
BR-03	09/20/02	370	6.5	--	--	--
BR-03	12/07/02	821	13.5	--	--	--
BR-03	03/21/03	590	7.7	--	2	--
BR-03	06/12/03	632	25.3	1.9	3	--
BR-03	09/18/03	1,150	10.4	1.5	3.1	--
BR-03	12/12/03	--	--	--	--	--
BR-03	06/17/04	446	17.0	1.1	1.5	--
BR-03	12/03/04	60.6	27.0	--	1.0	--
BR-03	06/26/05	73.4	5.6	--	--	--
BR-03	12/02/05	5.57	21.0	--	--	--
BR-03	07/19/06	248	6.97	--	--	--
BR-03	12/08/06	29.7	27.3	--	--	--
BR-03	05/01/07	701	7.32	--	1.89	--
BR-03	12/11/07	35.4	21.8	--	--	--
BR-03	05/03/08	588	5.20	--	1.81	--
BR-03	11/04/08	61.8	4.61	--	--	--
BR-03	05/04/09	202	3.10	--	--	--
BR-03	10/19/09	365	29.3	1.02	2.05	--
BR-03	05/11/10	270	3.15	--	--	--
BR-03	05/03/11	52.5	75	--	--	--

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2011 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-03	11/02/11	--	37.1	--	--	--
BR-04	11/19/00	10,000	600	140	17 J	25 J
BR-04	03/24/01	9,000	400	95 J	--	--
BR-04	06/19/01	4,300	320	61 J	--	--
BR-04	09/17/01	5,000	420	100 J	--	--
BR-04	12/17/01	5,700	430	79.9	9	27.4
BR-04	03/12/02	5,750	384	77	8.1	23.4
BR-04	06/10/02	4,570	338	49	--	--
BR-04	09/23/02	3,310	551	63.1	8.3	32.2
BR-04	12/09/02	5,300	535	77.6	8.3	27.1
BR-04	03/23/03	4,630	473	52	6.8	14.8
BR-04	06/13/03	302	1,280	19.5	3.6	1.2
BR-04	09/21/03	2,540	560	61	5.4	32.2
BR-04	12/14/03	3,650	507	51.9	6.2	14.3
BR-04	06/19/04	102	1,420	45.8	6.4	3.0
BR-04	12/05/04	4,090	2,810	90.0	15.3	8.3
BR-04	06/28/05	6.6	937	22.5	1.6	1.2
BR-04	12/03/05	16.4	127	2.21	--	--
BR-04	07/20/06	3,940	6,410	147	21.3	12.9
BR-04	12/09/06	5.32	2,030	24.1	3.17	5.21
BR-04	05/01/07	56.9	446	12.7	1.09	--
BR-04	12/12/07	8.64	240	4.36	--	3.07
BR-04	05/04/08	332	647	17.7	2.83	1.37
BR-04	11/06/08	7.04	490	8.51	--	3.28
BR-04	05/06/09	498	163	10.9	1.59	--
BR-04	10/21/09	25.1	167	5.24	--	1.72
BR-04	05/12/10	325	321	11.7	1.37	--
BR-04	05/03/11	--	--	--	--	--
BR-04	11/01/11	4.29	5.02	--	--	--
BR-10	11/18/00	4,000	450	27 J	--	--
BR-10	03/28/01	4,700	980	110 J	--	--
BR-10	06/18/01	8,500	1,000	--	--	--
BR-10	09/17/01	8,700	1,700	160 J	--	--
BR-10	12/16/01	5,350	1,200	82.8	3.4	5.6
BR-10	03/11/02	3,745	1,090	78.2	3.9	5.5
BR-10	06/09/02	5,100	1,290	64.6	4.7	5.3
BR-10	09/22/02	--	120	9.8	--	--
BR-10	12/09/02	3,060	750	60.1	2.3	--
BR-10	03/22/03	2,580	886	42.2	2.5	3.1
BR-10	06/13/03	2,950	1,080	61.7	3.2	5.1
BR-10	09/21/03	2,250	400	49.4	2	16.1
BR-10	12/13/03	1,420	442	36.4	1.4	8.8

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2011 Sampling Events

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Sample ID	Date Sampled	TCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,1-DCE (µg/L)	Vinyl Chloride (µg/L)
BR-10	06/19/04	1,520	507	62.9	2.9	6.8
BR-10	12/04/04	1,270	436	41.2	1.8	5.0
BR-10	06/27/05	558	166	17.3	--	1.3
BR-10	12/03/05	474	122	11.1	--	--
BR-10	07/20/06	52.3	12.2	1.53	--	--
BR-10	12/08/06	28.2	15.0	1.26	--	--
BR-10	05/02/07	226	57.8	5.87	--	--
BR-10	12/12/07	17.8	3.83	--	--	--
BR-10	05/04/08	357	94.6	10.7	--	1.40
BR-10	11/05/08	8.44	3.02	--	--	--
BR-10	05/05/09	235	66.1	10.3	--	1.07
BR-10	10/20/09	48	22	2.79	--	--
BR-10	05/11/10	277	77.3	14.0	--	--
BR-10	05/03/11	725	312	26.3	--	2.79
BR-10	11/01/11	417	231	25.3	--	2.87
BR-15	11/19/00	2,700	54 J	--	--	--
BR-15 (DUP)	11/19/00	2,700	49 J	--	--	--
BR-15	03/26/01	2,500	33 J	--	--	--
BR-15	06/18/01	2,300	49 J	--	--	--
BR-15	09/16/01	4,800	110 J	--	--	--
BR-15	12/16/01	6,590	189	28.2	2	1.1
BR-15	03/11/02	5,500	172	36.6	2.2	--
BR-15	06/09/02	5,800	373	36.9	4.6	3.8
BR-15	09/22/02	4,390	555	40.3	7.5	5.4
BR-15	12/08/02	4,740	177	43.6	2.8	--
BR-15	03/22/03	2,500	404	21.9	4.3	1.2
BR-15	06/13/03	1,180	1,390	24.8	8.4	3.9
BR-15	09/21/03	1,230	580	35.3	6.9	8.3
BR-15	12/13/03	2,000	194	24.9	2.8	--
BR-15	12/12/07	212	380	2.81	1.48	15.7
BR-15	05/04/08	43.4	449	2.94	1.38	28.2
BR-15	11/06/08	4.08	4.04	--	--	--
BR-15	05/06/09	261	105	1.33	--	6.40
BR-15	10/20/09	38.0	19.3	--	--	--
BR-15	05/12/10	167	123	2.12	--	3.11
BR-15	05/04/11	1.74	27.2	--	--	25.9
BR-15	11/02/11	1.01	8.81	--	--	10.8

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for the Existing Bedrock Wells for the 2000-2011 Sampling Events

2011 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Notes: -- = no detections
3DMe® = 3-D Microemulsion®
µg/L = micrograms per liter
1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
trans-1,2-DCE = trans-1,2-dichloroethene
DUP = duplicate
ID = identification
J = estimated value
NA = not analyzed
TCE = trichloroethene
VOC = volatile organic compound

Prepared by C. Wolf (RW) on 1/18/12
Checked by J. Deatherage (JSD) on 1/20/12

APPENDIX D

LABORATORY REPORTS

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Road
Nashville, TN 37204
Tel: 800-765-0980

TestAmerica Job ID: NUE1019
Client Project/Site: 3031052006-16
Client Project Description: Former Taylor Instruments

For:
MACTEC Engineering & Consulting, Inc. (4997)
9725 Cogdill Rd.
Knoxville, TN 37932

Attn: Joe Deatherage

Authorized for release by:
07/21/2011 10:28:23 AM

Shali Brown
Project Manager
shali.brown@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Table of Contents

Sample Summary

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NUE1019-01	OB-06	Ground Water	05/03/11 11:50	05/06/11 09:00
NUE1019-02	BR-04	Ground Water	05/03/11 13:20	05/06/11 09:00
NUE1019-03	BR-10	Ground Water	05/03/11 14:20	05/06/11 09:00
NUE1019-04	TW-04	Ground Water	05/03/11 15:20	05/06/11 09:00
NUE1019-05	BR-03	Ground Water	05/03/11 16:35	05/06/11 09:00
NUE1019-06	TW-09	Ground Water	05/03/11 17:55	05/06/11 09:00
NUE1019-07	BR-02	Ground Water	05/04/11 09:20	05/06/11 09:00
NUE1019-08	TW-20	Ground Water	05/04/11 10:30	05/06/11 09:00
NUE1019-09	QATB01	Water	05/03/11 08:00	05/06/11 09:00
NUE1019-10	BR-01	Ground Water	05/04/11 12:40	05/06/11 09:00
NUE1019-11	QAFB01	Water	05/04/11 07:50	05/06/11 09:00
NUE1019-12	BR-15	Ground Water	05/04/11 15:00	05/06/11 09:00
NUE1019-13	W-5	Ground Water	05/04/11 17:30	05/06/11 09:00
NUE1019-14	W-5 (DUP)	Ground Water	05/04/11 17:30	05/06/11 09:00
NUE1019-15	QARB01	Water	05/04/11 17:55	05/06/11 09:00
NUE1019-16	TW-17	Ground Water	05/05/11 08:00	05/06/11 09:00
NUE1019-18	OB-04	Ground Water	05/03/11 10:25	05/06/11 09:00
NUE1019-19	OB-08	Ground Water	05/04/11 11:35	05/06/11 09:00

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Job ID: NUE1019

Laboratory: TestAmerica Nashville

Narrative

072111 Revised report to include only the 8260 analysis at client request. This report replaces the report previously issued on 052011 at 1334.

Client: MACTEC Engineering & Consulting, Inc. (4997) TestAmerica Job ID: NUE1019
Project/Site: 3031052006-16

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
R	The RPD exceeded the method control limit. The individual analyte QA/QC recoveries, however, were within acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: OB-06
Date Collected: 05/03/11 11:50
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-01
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 13:36	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 13:36	1.00
cis-1,2-Dichloroethene	**77.4**		1.00		ug/L		05/07/11 09:13	05/11/11 13:36	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 13:36	1.00
Trichloroethene	**60.0**		1.00		ug/L		05/07/11 09:13	05/11/11 13:36	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/11/11 13:36	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*106*		*63 - 140*	*05/07/11 09:13*	*05/11/11 13:36*	*1.00*
Dibromofluoromethane	*104*		*73 - 131*	*05/07/11 09:13*	*05/11/11 13:36*	*1.00*
Toluene-d8	*98*		*80 - 120*	*05/07/11 09:13*	*05/11/11 13:36*	*1.00*
4-Bromofluorobenzene	*105*		*79 - 125*	*05/07/11 09:13*	*05/11/11 13:36*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: BR-04
Date Collected: 05/03/11 13:20
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-02
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:02	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:02	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:02	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:02	1.00
Trichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:02	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:02	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*63 - 140*	*05/07/11 09:13*	*05/11/11 14:02*	*1.00*
Dibromofluoromethane	*98*		*73 - 131*	*05/07/11 09:13*	*05/11/11 14:02*	*1.00*
Toluene-d8	*100*		*80 - 120*	*05/07/11 09:13*	*05/11/11 14:02*	*1.00*
4-Bromofluorobenzene	*106*		*79 - 125*	*05/07/11 09:13*	*05/11/11 14:02*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: BR-10
Date Collected: 05/03/11 14:20
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-03
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:27	1.00
trans-1,2-Dichloroethene	**26.3**		1.00		ug/L		05/07/11 09:13	05/11/11 14:27	1.00
Tetrachloroethene	**1.36**		1.00		ug/L		05/07/11 09:13	05/11/11 14:27	1.00
Vinyl chloride	**2.79**		1.00		ug/L		05/07/11 09:13	05/11/11 14:27	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*107*		*63 - 140*	*05/07/11 09:13*	*05/11/11 14:27*	*1.00*
Dibromofluoromethane	*99*		*73 - 131*	*05/07/11 09:13*	*05/11/11 14:27*	*1.00*
Toluene-d8	*99*		*80 - 120*	*05/07/11 09:13*	*05/11/11 14:27*	*1.00*
4-Bromofluorobenzene	*102*		*79 - 125*	*05/07/11 09:13*	*05/11/11 14:27*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**312**		10.0		ug/L		05/07/11 09:13	05/12/11 15:14	10.0
Trichloroethene	**725**		10.0		ug/L		05/07/11 09:13	05/12/11 15:14	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*106*		*63 - 140*	*05/07/11 09:13*	*05/12/11 15:14*	*10.0*
Dibromofluoromethane	*105*		*73 - 131*	*05/07/11 09:13*	*05/12/11 15:14*	*10.0*
Toluene-d8	*99*		*80 - 120*	*05/07/11 09:13*	*05/12/11 15:14*	*10.0*
4-Bromofluorobenzene	*104*		*79 - 125*	*05/07/11 09:13*	*05/12/11 15:14*	*10.0*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: TW-04
Date Collected: 05/03/11 15:20
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-04
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:53	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:53	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:53	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:53	1.00
Trichloroethene	**6.17**		1.00		ug/L		05/07/11 09:13	05/11/11 14:53	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/11/11 14:53	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*109*		*63 - 140*	*05/07/11 09:13*	*05/11/11 14:53*	*1.00*
Dibromofluoromethane	*101*		*73 - 131*	*05/07/11 09:13*	*05/11/11 14:53*	*1.00*
Toluene-d8	*99*		*80 - 120*	*05/07/11 09:13*	*05/11/11 14:53*	*1.00*
4-Bromofluorobenzene	*104*		*79 - 125*	*05/07/11 09:13*	*05/11/11 14:53*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: BR-03
Date Collected: 05/03/11 16:35
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-05
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 15:18	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 15:18	1.00
cis-1,2-Dichloroethene	**75.0**		1.00		ug/L		05/07/11 09:13	05/11/11 15:18	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 15:18	1.00
Trichloroethene	**52.5**		1.00		ug/L		05/07/11 09:13	05/11/11 15:18	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/11/11 15:18	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*109*		*63 - 140*	*05/07/11 09:13*	*05/11/11 15:18*	*1.00*
Dibromofluoromethane	*99*		*73 - 131*	*05/07/11 09:13*	*05/11/11 15:18*	*1.00*
Toluene-d8	*97*		*80 - 120*	*05/07/11 09:13*	*05/11/11 15:18*	*1.00*
4-Bromofluorobenzene	*102*		*79 - 125*	*05/07/11 09:13*	*05/11/11 15:18*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: TW-09
Date Collected: 05/03/11 17:55
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-06
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 15:44	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 15:44	1.00
cis-1,2-Dichloroethene	**2.28**		1.00		ug/L		05/07/11 09:13	05/11/11 15:44	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 15:44	1.00
Trichloroethene	**4.13**		1.00		ug/L		05/07/11 09:13	05/11/11 15:44	1.00
Vinyl chloride	**4.17**		1.00		ug/L		05/07/11 09:13	05/11/11 15:44	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*108*		*63 - 140*	*05/07/11 09:13*	*05/11/11 15:44*	*1.00*
Dibromofluoromethane	*105*		*73 - 131*	*05/07/11 09:13*	*05/11/11 15:44*	*1.00*
Toluene-d8	*99*		*80 - 120*	*05/07/11 09:13*	*05/11/11 15:44*	*1.00*
4-Bromofluorobenzene	*105*		*79 - 125*	*05/07/11 09:13*	*05/11/11 15:44*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: BR-02
Date Collected: 05/04/11 09:20
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-07
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 16:09	1.00
trans-1,2-Dichloroethene	**8.89**		1.00		ug/L		05/07/11 09:13	05/11/11 16:09	1.00
cis-1,2-Dichloroethene	**56.2**		1.00		ug/L		05/07/11 09:13	05/11/11 16:09	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 16:09	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/11/11 16:09	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*101*		*63 - 140*	*05/07/11 09:13*	*05/11/11 16:09*	*1.00*
Dibromofluoromethane	*100*		*73 - 131*	*05/07/11 09:13*	*05/11/11 16:09*	*1.00*
Toluene-d8	*97*		*80 - 120*	*05/07/11 09:13*	*05/11/11 16:09*	*1.00*
4-Bromofluorobenzene	*103*		*79 - 125*	*05/07/11 09:13*	*05/11/11 16:09*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**237**		5.00		ug/L		05/07/11 09:13	05/12/11 15:39	5.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*105*		*63 - 140*	*05/07/11 09:13*	*05/12/11 15:39*	*5.00*
Dibromofluoromethane	*100*		*73 - 131*	*05/07/11 09:13*	*05/12/11 15:39*	*5.00*
Toluene-d8	*97*		*80 - 120*	*05/07/11 09:13*	*05/12/11 15:39*	*5.00*
4-Bromofluorobenzene	*103*		*79 - 125*	*05/07/11 09:13*	*05/12/11 15:39*	*5.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: TW-20
Date Collected: 05/04/11 10:30
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-08
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 16:35	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 16:35	1.00
cis-1,2-Dichloroethene	**2.86**		1.00		ug/L		05/07/11 09:13	05/11/11 16:35	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 16:35	1.00
Trichloroethene	**65.0**		1.00		ug/L		05/07/11 09:13	05/11/11 16:35	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/11/11 16:35	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*63 - 140*	*05/07/11 09:13*	*05/11/11 16:35*	*1.00*
Dibromofluoromethane	*101*		*73 - 131*	*05/07/11 09:13*	*05/11/11 16:35*	*1.00*
Toluene-d8	*99*		*80 - 120*	*05/07/11 09:13*	*05/11/11 16:35*	*1.00*
4-Bromofluorobenzene	*102*		*79 - 125*	*05/07/11 09:13*	*05/11/11 16:35*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: QATB01
Date Collected: 05/03/11 08:00
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-09
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50.0		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Benzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Bromobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Bromochloromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Bromodichloromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Bromoform	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Bromomethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
2-Butanone	ND		50.0		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
sec-Butylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
n-Butylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
tert-Butylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Carbon disulfide	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Chlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Chloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Chloroform	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Chloromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
2-Chlorotoluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
4-Chlorotoluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,2-Dibromoethane (EDB)	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Dibromomethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Dichlorodifluoromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,3-Dichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
2,2-Dichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,1-Dichloropropene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Ethylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Hexachlorobutadiene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
2-Hexanone	ND		50.0		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Isopropylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
p-Isopropyltoluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Methylene Chloride	ND		5.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Naphthalene	ND		5.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
n-Propylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Styrene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: QATB01
Date Collected: 05/03/11 08:00
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-09
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Toluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Trichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00
Xylenes, total	ND		3.00		ug/L		05/07/11 09:13	05/13/11 14:37	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*106*		*63 - 140*	*05/07/11 09:13*	*05/13/11 14:37*	*1.00*
Dibromofluoromethane	*101*		*73 - 131*	*05/07/11 09:13*	*05/13/11 14:37*	*1.00*
Toluene-d8	*86*		*80 - 120*	*05/07/11 09:13*	*05/13/11 14:37*	*1.00*
4-Bromofluorobenzene	*104*		*79 - 125*	*05/07/11 09:13*	*05/13/11 14:37*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: BR-01
Date Collected: 05/04/11 12:40
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-10
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 17:01	1.00
trans-1,2-Dichloroethene	**1.03**		1.00		ug/L		05/07/11 09:13	05/11/11 17:01	1.00
cis-1,2-Dichloroethene	**14.6**		1.00		ug/L		05/07/11 09:13	05/11/11 17:01	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 17:01	1.00
Trichloroethene	**2.05**		1.00		ug/L		05/07/11 09:13	05/11/11 17:01	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/11/11 17:01	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*108*		*63 - 140*	*05/07/11 09:13*	*05/11/11 17:01*	*1.00*
Dibromofluoromethane	*102*		*73 - 131*	*05/07/11 09:13*	*05/11/11 17:01*	*1.00*
Toluene-d8	*99*		*80 - 120*	*05/07/11 09:13*	*05/11/11 17:01*	*1.00*
4-Bromofluorobenzene	*103*		*79 - 125*	*05/07/11 09:13*	*05/11/11 17:01*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: QAFB01
Date Collected: 05/04/11 07:50
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-11
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50.0		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Benzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Bromobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Bromochloromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Bromodichloromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Bromoform	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Bromomethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
2-Butanone	ND		50.0		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
sec-Butylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
n-Butylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
tert-Butylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Carbon disulfide	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Chlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Chloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Chloroform	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Chloromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
2-Chlorotoluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
4-Chlorotoluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,2-Dibromoethane (EDB)	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Dibromomethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Dichlorodifluoromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,3-Dichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
2,2-Dichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,1-Dichloropropene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Ethylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Hexachlorobutadiene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
2-Hexanone	ND		50.0		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Isopropylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
p-Isopropyltoluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Methylene Chloride	ND		5.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Naphthalene	ND		5.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
n-Propylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Styrene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: QAFB01
Date Collected: 05/04/11 07:50
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-11
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Toluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Trichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00
Xylenes, total	ND		3.00		ug/L		05/07/11 09:13	05/13/11 15:05	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*108*		*63 - 140*	*05/07/11 09:13*	*05/13/11 15:05*	*1.00*
Dibromofluoromethane	*103*		*73 - 131*	*05/07/11 09:13*	*05/13/11 15:05*	*1.00*
Toluene-d8	*87*		*80 - 120*	*05/07/11 09:13*	*05/13/11 15:05*	*1.00*
4-Bromofluorobenzene	*104*		*79 - 125*	*05/07/11 09:13*	*05/13/11 15:05*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: BR-15
Date Collected: 05/04/11 15:00
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-12
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 17:26	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 17:26	1.00
cis-1,2-Dichloroethene	**27.2**		1.00		ug/L		05/07/11 09:13	05/11/11 17:26	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 17:26	1.00
Trichloroethene	**1.74**		1.00		ug/L		05/07/11 09:13	05/11/11 17:26	1.00
Vinyl chloride	**25.9**		1.00		ug/L		05/07/11 09:13	05/11/11 17:26	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*107*		*63 - 140*	*05/07/11 09:13*	*05/11/11 17:26*	*1.00*
Dibromofluoromethane	*105*		*73 - 131*	*05/07/11 09:13*	*05/11/11 17:26*	*1.00*
Toluene-d8	*97*		*80 - 120*	*05/07/11 09:13*	*05/11/11 17:26*	*1.00*
4-Bromofluorobenzene	*105*		*79 - 125*	*05/07/11 09:13*	*05/11/11 17:26*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: W-5
Date Collected: 05/04/11 17:30
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-13
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 17:52	1.00
trans-1,2-Dichloroethene	**1.39**		1.00		ug/L		05/07/11 09:13	05/11/11 17:52	1.00
cis-1,2-Dichloroethene	**117**		1.00		ug/L		05/07/11 09:13	05/11/11 17:52	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 17:52	1.00
Vinyl chloride	**1.51**		1.00		ug/L		05/07/11 09:13	05/11/11 17:52	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*104*		*63 - 140*	*05/07/11 09:13*	*05/11/11 17:52*	*1.00*
Dibromofluoromethane	*99*		*73 - 131*	*05/07/11 09:13*	*05/11/11 17:52*	*1.00*
Toluene-d8	*97*		*80 - 120*	*05/07/11 09:13*	*05/11/11 17:52*	*1.00*
4-Bromofluorobenzene	*103*		*79 - 125*	*05/07/11 09:13*	*05/11/11 17:52*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**445**		10.0		ug/L		05/07/11 09:13	05/12/11 16:05	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*63 - 140*	*05/07/11 09:13*	*05/12/11 16:05*	*10.0*
Dibromofluoromethane	*99*		*73 - 131*	*05/07/11 09:13*	*05/12/11 16:05*	*10.0*
Toluene-d8	*98*		*80 - 120*	*05/07/11 09:13*	*05/12/11 16:05*	*10.0*
4-Bromofluorobenzene	*101*		*79 - 125*	*05/07/11 09:13*	*05/12/11 16:05*	*10.0*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: W-5 (DUP)
Date Collected: 05/04/11 17:30
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-14
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 18:17	1.00
trans-1,2-Dichloroethene	**1.62**		1.00		ug/L		05/07/11 09:13	05/11/11 18:17	1.00
cis-1,2-Dichloroethene	**141**		1.00		ug/L		05/07/11 09:13	05/11/11 18:17	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 18:17	1.00
Vinyl chloride	**1.53**		1.00		ug/L		05/07/11 09:13	05/11/11 18:17	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*63 - 140*	*05/07/11 09:13*	*05/11/11 18:17*	*1.00*
Dibromofluoromethane	*102*		*73 - 131*	*05/07/11 09:13*	*05/11/11 18:17*	*1.00*
Toluene-d8	*98*		*80 - 120*	*05/07/11 09:13*	*05/11/11 18:17*	*1.00*
4-Bromofluorobenzene	*104*		*79 - 125*	*05/07/11 09:13*	*05/11/11 18:17*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**432**		10.0		ug/L		05/07/11 09:13	05/12/11 16:30	10.0

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*63 - 140*	*05/07/11 09:13*	*05/12/11 16:30*	*10.0*
Dibromofluoromethane	*98*		*73 - 131*	*05/07/11 09:13*	*05/12/11 16:30*	*10.0*
Toluene-d8	*98*		*80 - 120*	*05/07/11 09:13*	*05/12/11 16:30*	*10.0*
4-Bromofluorobenzene	*101*		*79 - 125*	*05/07/11 09:13*	*05/12/11 16:30*	*10.0*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: QARB01
Date Collected: 05/04/11 17:55
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-15
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50.0		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Benzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Bromobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Bromochloromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Bromodichloromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Bromoform	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Bromomethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
2-Butanone	ND		50.0		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
sec-Butylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
n-Butylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
tert-Butylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Carbon disulfide	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Chlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Chloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Chloroform	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Chloromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
2-Chlorotoluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
4-Chlorotoluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,2-Dibromoethane (EDB)	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Dibromomethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Dichlorodifluoromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,3-Dichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
2,2-Dichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,1-Dichloropropene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Ethylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Hexachlorobutadiene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
2-Hexanone	ND		50.0		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Isopropylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
p-Isopropyltoluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Methylene Chloride	ND		5.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Naphthalene	ND		5.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
n-Propylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Styrene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: QARB01
Date Collected: 05/04/11 17:55
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-15
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Toluene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Trichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00
Xylenes, total	ND		3.00		ug/L		05/07/11 09:13	05/13/11 15:33	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*108*		*63 - 140*	*05/07/11 09:13*	*05/13/11 15:33*	*1.00*
Dibromofluoromethane	*103*		*73 - 131*	*05/07/11 09:13*	*05/13/11 15:33*	*1.00*
Toluene-d8	*85*		*80 - 120*	*05/07/11 09:13*	*05/13/11 15:33*	*1.00*
4-Bromofluorobenzene	*103*		*79 - 125*	*05/07/11 09:13*	*05/13/11 15:33*	*1.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: TW-17
Date Collected: 05/05/11 08:00
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-16
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 18:42	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 18:42	1.00
cis-1,2-Dichloroethene	**115**		1.00		ug/L		05/07/11 09:13	05/11/11 18:42	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 18:42	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/11/11 18:42	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*63 - 140*	*05/07/11 09:13*	*05/11/11 18:42*	*1.00*
Dibromofluoromethane	*100*		*73 - 131*	*05/07/11 09:13*	*05/11/11 18:42*	*1.00*
Toluene-d8	*97*		*80 - 120*	*05/07/11 09:13*	*05/11/11 18:42*	*1.00*
4-Bromofluorobenzene	*98*		*79 - 125*	*05/07/11 09:13*	*05/11/11 18:42*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**205**		5.00		ug/L		05/07/11 09:13	05/12/11 16:56	5.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*63 - 140*	*05/07/11 09:13*	*05/12/11 16:56*	*5.00*
Dibromofluoromethane	*98*		*73 - 131*	*05/07/11 09:13*	*05/12/11 16:56*	*5.00*
Toluene-d8	*98*		*80 - 120*	*05/07/11 09:13*	*05/12/11 16:56*	*5.00*
4-Bromofluorobenzene	*101*		*79 - 125*	*05/07/11 09:13*	*05/12/11 16:56*	*5.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: OB-04
Date Collected: 05/03/11 10:25
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-18
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 19:08	1.00
trans-1,2-Dichloroethene	**1.79**		1.00		ug/L		05/07/11 09:13	05/11/11 19:08	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 19:08	1.00
Trichloroethene	**47.1**		1.00		ug/L		05/07/11 09:13	05/11/11 19:08	1.00
Vinyl chloride	**43.3**		1.00		ug/L		05/07/11 09:13	05/11/11 19:08	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*107*		*63 - 140*	*05/07/11 09:13*	*05/11/11 19:08*	*1.00*
Dibromofluoromethane	*100*		*73 - 131*	*05/07/11 09:13*	*05/11/11 19:08*	*1.00*
Toluene-d8	*97*		*80 - 120*	*05/07/11 09:13*	*05/11/11 19:08*	*1.00*
4-Bromofluorobenzene	*101*		*79 - 125*	*05/07/11 09:13*	*05/11/11 19:08*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**304**		5.00		ug/L		05/07/11 09:13	05/12/11 17:21	5.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*107*		*63 - 140*	*05/07/11 09:13*	*05/12/11 17:21*	*5.00*
Dibromofluoromethane	*97*		*73 - 131*	*05/07/11 09:13*	*05/12/11 17:21*	*5.00*
Toluene-d8	*98*		*80 - 120*	*05/07/11 09:13*	*05/12/11 17:21*	*5.00*
4-Bromofluorobenzene	*104*		*79 - 125*	*05/07/11 09:13*	*05/12/11 17:21*	*5.00*

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: OB-08
Date Collected: 05/04/11 11:35
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-19
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 19:33	1.00
trans-1,2-Dichloroethene	**22.7**		1.00		ug/L		05/07/11 09:13	05/11/11 19:33	1.00
cis-1,2-Dichloroethene	**67.9**		1.00		ug/L		05/07/11 09:13	05/11/11 19:33	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 19:33	1.00
Trichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 19:33	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*108*		*63 - 140*	*05/07/11 09:13*	*05/11/11 19:33*	*1.00*
Dibromofluoromethane	*106*		*73 - 131*	*05/07/11 09:13*	*05/11/11 19:33*	*1.00*
Toluene-d8	*98*		*80 - 120*	*05/07/11 09:13*	*05/11/11 19:33*	*1.00*
4-Bromofluorobenzene	*106*		*79 - 125*	*05/07/11 09:13*	*05/11/11 19:33*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**249**		5.00		ug/L		05/07/11 09:13	05/12/11 17:47	5.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*112*		*63 - 140*	*05/07/11 09:13*	*05/12/11 17:47*	*5.00*
Dibromofluoromethane	*103*		*73 - 131*	*05/07/11 09:13*	*05/12/11 17:47*	*5.00*
Toluene-d8	*99*		*80 - 120*	*05/07/11 09:13*	*05/12/11 17:47*	*5.00*
4-Bromofluorobenzene	*102*		*79 - 125*	*05/07/11 09:13*	*05/12/11 17:47*	*5.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 11E1702-BLK1
Matrix: Water
Analysis Batch: U008378

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11E1702_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 12:19	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 12:19	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 12:19	1.00
Tetrachloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 12:19	1.00
Trichloroethene	ND		1.00		ug/L		05/07/11 09:13	05/11/11 12:19	1.00
Vinyl chloride	ND		1.00		ug/L		05/07/11 09:13	05/11/11 12:19	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*63 - 140*	*05/07/11 09:13*	*05/11/11 12:19*	*1.00*
Dibromofluoromethane	*99*		*73 - 131*	*05/07/11 09:13*	*05/11/11 12:19*	*1.00*
Toluene-d8	*99*		*80 - 120*	*05/07/11 09:13*	*05/11/11 12:19*	*1.00*
4-Bromofluorobenzene	*103*		*79 - 125*	*05/07/11 09:13*	*05/11/11 12:19*	*1.00*

Lab Sample ID: 11E1702-BS1
Matrix: Water
Analysis Batch: U008378

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11E1702_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,1-Dichloroethene	20.0	20.1		ug/L		101	73 - 125
trans-1,2-Dichloroethene	20.0	20.2		ug/L		101	77 - 125
cis-1,2-Dichloroethene	20.0	20.9		ug/L		105	71 - 132
Tetrachloroethene	20.0	19.3		ug/L		97	77 - 131
Trichloroethene	20.0	20.0		ug/L		100	74 - 139
Vinyl chloride	20.0	18.7		ug/L		93	60 - 122

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*103*		*63 - 140*
Dibromofluoromethane	*104*		*73 - 131*
Toluene-d8	*101*		*80 - 120*
4-Bromofluorobenzene	*98*		*79 - 125*

Lab Sample ID: 11E1702-MS1
Matrix: Water
Analysis Batch: U008378

Client Sample ID: BR-04
Prep Type: Total
Prep Batch: 11E1702_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
1,1-Dichloroethene	ND		50.0	54.2		ug/L		108	34 - 151
trans-1,2-Dichloroethene	ND		50.0	47.8		ug/L		96	57 - 157
cis-1,2-Dichloroethene	ND		50.0	49.0		ug/L		98	57 - 154
Tetrachloroethene	ND		50.0	51.3		ug/L		103	63 - 155
Trichloroethene	ND		50.0	52.6		ug/L		105	74 - 139
Vinyl chloride	ND		50.0	39.3		ug/L		79	53 - 137

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*93*		*63 - 140*
Dibromofluoromethane	*99*		*73 - 131*
Toluene-d8	*98*		*80 - 120*
4-Bromofluorobenzene	*90*		*79 - 125*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11E1702-MSD1
Matrix: Water
Analysis Batch: U008378

Client Sample ID: BR-04
Prep Type: Total
Prep Batch: 11E1702_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		50.0	53.5		ug/L		107	34 - 151	1	31
trans-1,2-Dichloroethene	ND		50.0	47.7		ug/L		95	57 - 157	0.2	32
cis-1,2-Dichloroethene	ND		50.0	48.2		ug/L		96	57 - 154	2	32
Tetrachloroethene	ND		50.0	50.4		ug/L		101	63 - 155	2	16
Trichloroethene	ND		50.0	51.8		ug/L		104	74 - 139	2	11
Vinyl chloride	ND		50.0	38.2		ug/L		76	53 - 137	3	32

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*91*		*63 - 140*
Dibromofluoromethane	*100*		*73 - 131*
Toluene-d8	*98*		*80 - 120*
4-Bromofluorobenzene	*92*		*79 - 125*

Lab Sample ID: 11E2289-BLK1
Matrix: Water
Analysis Batch: U008389

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11E2289_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		05/10/11 10:36	05/12/11 13:57	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/10/11 10:36	05/12/11 13:57	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/10/11 10:36	05/12/11 13:57	1.00
Tetrachloroethene	ND		1.00		ug/L		05/10/11 10:36	05/12/11 13:57	1.00
Trichloroethene	ND		1.00		ug/L		05/10/11 10:36	05/12/11 13:57	1.00
Vinyl chloride	ND		1.00		ug/L		05/10/11 10:36	05/12/11 13:57	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*63 - 140*	*05/10/11 10:36*	*05/12/11 13:57*	*1.00*
Dibromofluoromethane	*100*		*73 - 131*	*05/10/11 10:36*	*05/12/11 13:57*	*1.00*
Toluene-d8	*98*		*80 - 120*	*05/10/11 10:36*	*05/12/11 13:57*	*1.00*
4-Bromofluorobenzene	*102*		*79 - 125*	*05/10/11 10:36*	*05/12/11 13:57*	*1.00*

Lab Sample ID: 11E2289-BS1
Matrix: Water
Analysis Batch: U008389

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11E2289_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,1-Dichloroethene	20.0	21.0		ug/L		105	73 - 125
trans-1,2-Dichloroethene	20.0	20.5		ug/L		103	77 - 125
cis-1,2-Dichloroethene	20.0	20.4		ug/L		102	71 - 132
Tetrachloroethene	20.0	20.9		ug/L		105	77 - 131
Trichloroethene	20.0	20.5		ug/L		103	74 - 139
Vinyl chloride	20.0	16.3		ug/L		82	60 - 122

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*107*		*63 - 140*
Dibromofluoromethane	*101*		*73 - 131*
Toluene-d8	*97*		*80 - 120*
4-Bromofluorobenzene	*94*		*79 - 125*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11E2289-BSD1
Matrix: Water
Analysis Batch: U008389

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 11E2289_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			20.0	23.0		ug/L		115	73 - 125	9	31
trans-1,2-Dichloroethene			20.0	21.2		ug/L		106	77 - 125	3	32
cis-1,2-Dichloroethene			20.0	20.4		ug/L		102	71 - 132	0.2	32
Tetrachloroethene			20.0	21.2		ug/L		106	77 - 131	1	16
Trichloroethene			20.0	21.9		ug/L		110	74 - 139	7	11
Vinyl chloride			20.0	17.2		ug/L		86	60 - 122	5	32

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*108*		*63 - 140*
Dibromofluoromethane	*103*		*73 - 131*
Toluene-d8	*97*		*80 - 120*
4-Bromofluorobenzene	*94*		*79 - 125*

Lab Sample ID: 11E2289-MS1
Matrix: Water
Analysis Batch: U008389

Client Sample ID: BR-10
Prep Type: Total
Prep Batch: 11E2289_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
1,1-Dichloroethene	ND		500	532		ug/L		106	34 - 151
trans-1,2-Dichloroethene	26.2		500	494		ug/L		94	57 - 157
cis-1,2-Dichloroethene	312		500	746		ug/L		87	57 - 154
Tetrachloroethene	ND		500	497		ug/L		99	63 - 155
Trichloroethene	725		500	1170		ug/L		90	74 - 139
Vinyl chloride	ND		500	381		ug/L		76	53 - 137

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*91*		*63 - 140*
Dibromofluoromethane	*97*		*73 - 131*
Toluene-d8	*96*		*80 - 120*
4-Bromofluorobenzene	*91*		*79 - 125*

Lab Sample ID: 11E2289-MSD1
Matrix: Water
Analysis Batch: U008389

Client Sample ID: BR-10
Prep Type: Total
Prep Batch: 11E2289_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		500	509		ug/L		102	34 - 151	4	31
trans-1,2-Dichloroethene	26.2		500	511		ug/L		97	57 - 157	3	32
cis-1,2-Dichloroethene	312		500	745		ug/L		87	57 - 154	0.08	32
Tetrachloroethene	ND		500	500		ug/L		100	63 - 155	0.6	16
Trichloroethene	725		500	1190		ug/L		92	74 - 139	1	11
Vinyl chloride	ND		500	382		ug/L		76	53 - 137	0.2	32

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*92*		*63 - 140*
Dibromofluoromethane	*99*		*73 - 131*
Toluene-d8	*97*		*80 - 120*
4-Bromofluorobenzene	*91*		*79 - 125*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11E3439-BLK1
Matrix: Water
Analysis Batch: U008430

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11E3439_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50.0		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Benzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Bromobenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Bromochloromethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Bromodichloromethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Bromoform	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Bromomethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
2-Butanone	ND		50.0		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
sec-Butylbenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
n-Butylbenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
tert-Butylbenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Carbon disulfide	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Carbon Tetrachloride	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Chlorobenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Chlorodibromomethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Chloroethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Chloroform	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Chloromethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
2-Chlorotoluene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
4-Chlorotoluene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,2-Dibromo-3-chloropropane	ND		5.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,2-Dibromoethane (EDB)	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Dibromomethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,4-Dichlorobenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,3-Dichlorobenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,2-Dichlorobenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Dichlorodifluoromethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,1-Dichloroethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,2-Dichloroethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,1-Dichloroethene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,3-Dichloropropane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,2-Dichloropropane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
2,2-Dichloropropane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
cis-1,3-Dichloropropene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
trans-1,3-Dichloropropene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,1-Dichloropropene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Ethylbenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Hexachlorobutadiene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
2-Hexanone	ND		50.0		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Isopropylbenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
p-Isopropyltoluene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Methyl tert-Butyl Ether	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Methylene Chloride	ND		5.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
4-Methyl-2-pentanone	ND		10.0		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Naphthalene	ND		5.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
n-Propylbenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Styrene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11E3439-BLK1
Matrix: Water
Analysis Batch: U008430

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11E3439_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,1,2,2-Tetrachloroethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Tetrachloroethene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Toluene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,2,3-Trichlorobenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,2,4-Trichlorobenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,1,2-Trichloroethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,1,1-Trichloroethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Trichloroethene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Trichlorofluoromethane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,2,3-Trichloropropane	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,3,5-Trimethylbenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
1,2,4-Trimethylbenzene	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Vinyl chloride	ND		1.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00
Xylenes, total	ND		3.00		ug/L		05/13/11 00:00	05/13/11 14:09	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*108*		*63 - 140*	*05/13/11 00:00*	*05/13/11 14:09*	*1.00*
Dibromofluoromethane	*100*		*73 - 131*	*05/13/11 00:00*	*05/13/11 14:09*	*1.00*
Toluene-d8	*85*		*80 - 120*	*05/13/11 00:00*	*05/13/11 14:09*	*1.00*
4-Bromofluorobenzene	*105*		*79 - 125*	*05/13/11 00:00*	*05/13/11 14:09*	*1.00*

Lab Sample ID: 11E3439-BS1
Matrix: Water
Analysis Batch: U008430

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11E3439_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Acetone	100	103		ug/L		103	56 - 150
Benzene	20.0	22.2		ug/L		111	80 - 121
Bromobenzene	20.0	23.0		ug/L		115	72 - 130
Bromochloromethane	20.0	22.6		ug/L		113	73 - 137
Bromodichloromethane	20.0	18.5		ug/L		92	75 - 131
Bromoform	20.0	16.8		ug/L		84	65 - 140
Bromomethane	20.0	25.3		ug/L		127	50 - 150
2-Butanone	100	107		ug/L		107	70 - 144
sec-Butylbenzene	20.0	25.7		ug/L		128	72 - 140
n-Butylbenzene	20.0	21.7		ug/L		108	68 - 140
tert-Butylbenzene	20.0	22.4		ug/L		112	76 - 135
Carbon disulfide	20.0	18.4		ug/L		92	74 - 137
Carbon Tetrachloride	20.0	19.0		ug/L		95	71 - 137
Chlorobenzene	20.0	22.1		ug/L		110	80 - 121
Chlorodibromomethane	20.0	18.9		ug/L		94	68 - 137
Chloroethane	20.0	19.6		ug/L		98	50 - 146
Chloroform	20.0	22.8		ug/L		114	73 - 131
Chloromethane	20.0	23.8		ug/L		119	30 - 132
2-Chlorotoluene	20.0	23.6		ug/L		118	74 - 135
4-Chlorotoluene	20.0	24.2		ug/L		121	74 - 132
1,2-Dibromo-3-chloropropane	20.0	17.4		ug/L		87	56 - 145
1,2-Dibromoethane (EDB)	20.0	22.6		ug/L		113	80 - 135

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11E3439-BS1
Matrix: Water
Analysis Batch: U008430

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11E3439_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Dibromomethane	20.0	21.9		ug/L		110	78 - 133
1,4-Dichlorobenzene	20.0	21.7		ug/L		108	80 - 120
1,3-Dichlorobenzene	20.0	22.5		ug/L		113	80 - 128
1,2-Dichlorobenzene	20.0	22.6		ug/L		113	80 - 125
Dichlorodifluoromethane	20.0	21.4		ug/L		107	30 - 132
1,1-Dichloroethane	20.0	22.4		ug/L		112	75 - 125
1,2-Dichloroethane	20.0	22.7		ug/L		114	70 - 134
cis-1,2-Dichloroethene	20.0	23.4		ug/L		117	71 - 132
1,1-Dichloroethene	20.0	21.0		ug/L		105	73 - 125
trans-1,2-Dichloroethene	20.0	22.0		ug/L		110	77 - 125
1,3-Dichloropropane	20.0	22.9		ug/L		115	76 - 125
1,2-Dichloropropane	20.0	21.8		ug/L		109	72 - 120
2,2-Dichloropropane	20.0	23.0		ug/L		115	50 - 150
cis-1,3-Dichloropropene	20.0	18.5		ug/L		93	70 - 140
trans-1,3-Dichloropropene	20.0	18.6		ug/L		93	62 - 139
1,1-Dichloropropene	20.0	22.4		ug/L		112	78 - 126
Ethylbenzene	20.0	23.7		ug/L		118	78 - 133
Hexachlorobutadiene	20.0	18.4		ug/L		92	70 - 150
2-Hexanone	100	100		ug/L		100	60 - 150
Isopropylbenzene	20.0	23.3		ug/L		116	69 - 120
p-Isopropyltoluene	20.0	22.1		ug/L		110	72 - 134
Methyl tert-Butyl Ether	20.0	21.7		ug/L		108	76 - 120
Methylene Chloride	20.0	21.3		ug/L		106	80 - 133
4-Methyl-2-pentanone	100	92.9		ug/L		93	62 - 146
Naphthalene	20.0	18.7		ug/L		93	71 - 139
n-Propylbenzene	20.0	24.9		ug/L		124	70 - 143
Styrene	20.0	21.3		ug/L		107	80 - 136
1,1,1,2-Tetrachloroethane	20.0	21.9		ug/L		109	80 - 130
1,1,2,2-Tetrachloroethane	20.0	22.0		ug/L		110	73 - 131
Tetrachloroethene	20.0	21.6		ug/L		108	77 - 131
Toluene	20.0	21.4		ug/L		107	78 - 125
1,2,3-Trichlorobenzene	20.0	18.2		ug/L		91	71 - 138
1,2,4-Trichlorobenzene	20.0	19.2		ug/L		96	74 - 136
1,1,2-Trichloroethane	20.0	22.0		ug/L		110	80 - 123
1,1,1-Trichloroethane	20.0	22.2		ug/L		111	75 - 137
Trichloroethene	20.0	21.3		ug/L		106	74 - 139
Trichlorofluoromethane	20.0	20.9		ug/L		105	60 - 133
1,2,3-Trichloropropane	20.0	21.0		ug/L		105	64 - 127
1,3,5-Trimethylbenzene	20.0	25.0		ug/L		125	75 - 134
1,2,4-Trimethylbenzene	20.0	21.6		ug/L		108	77 - 134
Vinyl chloride	20.0	20.7		ug/L		104	60 - 122
Xylenes, total	60.0	68.9		ug/L		115	78 - 134

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*101*		*63 - 140*
Dibromofluoromethane	*99*		*73 - 131*
Toluene-d8	*88*		*80 - 120*
4-Bromofluorobenzene	*105*		*79 - 125*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11E3439-MS1
Matrix: Water
Analysis Batch: U008430

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 11E3439_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Acetone	ND		250	155		ug/L		62	56 - 150
Benzene	0.670		50.0	36.9		ug/L		72	65 - 151
Bromobenzene	ND		50.0	51.1		ug/L		102	69 - 142
Bromochloromethane	ND		50.0	36.4		ug/L		73	64 - 154
Bromodichloromethane	ND		50.0	41.8		ug/L		84	75 - 138
Bromoform	ND		50.0	38.5		ug/L		77	55 - 153
Bromomethane	ND		50.0	38.0		ug/L		76	13 - 176
2-Butanone	ND		250	161		ug/L		64	45 - 164
sec-Butylbenzene	3.36		50.0	60.8		ug/L		115	68 - 159
n-Butylbenzene	5.37		50.0	54.3		ug/L		98	67 - 151
tert-Butylbenzene	2.02		50.0	55.0		ug/L		106	73 - 153
Carbon disulfide	ND		50.0	25.2		ug/L		50	33 - 187
Carbon Tetrachloride	ND		50.0	34.2		ug/L		68	64 - 157
Chlorobenzene	ND		50.0	48.2		ug/L		96	78 - 136
Chlorodibromomethane	ND		50.0	44.2		ug/L		88	64 - 145
Chloroethane	ND		50.0	30.9		ug/L		62	48 - 159
Chloroform	ND		50.0	39.8		ug/L		80	72 - 145
Chloromethane	ND		50.0	30.0		ug/L		60	10 - 194
2-Chlorotoluene	ND		50.0	54.4		ug/L		109	66 - 155
4-Chlorotoluene	ND		50.0	54.6		ug/L		109	69 - 149
1,2-Dibromo-3-chloropropane	ND		50.0	39.7		ug/L		79	49 - 162
1,2-Dibromoethane (EDB)	ND		50.0	51.1		ug/L		102	70 - 152
Dibromomethane	ND		50.0	46.0		ug/L		92	75 - 141
1,4-Dichlorobenzene	ND		50.0	47.6		ug/L		95	75 - 135
1,3-Dichlorobenzene	ND		50.0	49.1		ug/L		98	72 - 146
1,2-Dichlorobenzene	ND		50.0	49.8		ug/L		100	80 - 136
Dichlorodifluoromethane	ND		50.0	23.5		ug/L		47	23 - 159
1,1-Dichloroethane	ND		50.0	37.2		ug/L		74	64 - 154
1,2-Dichloroethane	ND		50.0	39.3		ug/L		79	72 - 137
cis-1,2-Dichloroethene	ND		50.0	38.4		ug/L		77	57 - 154
1,1-Dichloroethene	ND		50.0	34.1		ug/L		68	34 - 151
trans-1,2-Dichloroethene	ND		50.0	35.4		ug/L		71	57 - 157
1,3-Dichloropropane	ND		50.0	51.1		ug/L		102	71 - 137
1,2-Dichloropropane	ND		50.0	47.7		ug/L		95	71 - 139
2,2-Dichloropropane	ND		50.0	39.1		ug/L		78	10 - 198
cis-1,3-Dichloropropene	ND		50.0	49.0		ug/L		98	56 - 156
trans-1,3-Dichloropropene	ND		50.0	43.2		ug/L		86	47 - 157
1,1-Dichloropropene	ND		50.0	37.6		ug/L		75	70 - 155
Ethylbenzene	80.9		50.0	123		ug/L		83	68 - 157
Hexachlorobutadiene	ND		50.0	50.4		ug/L		101	47 - 173
2-Hexanone	ND		250	216		ug/L		87	57 - 154
Isopropylbenzene	23.4		50.0	74.6		ug/L		102	69 - 139
p-Isopropyltoluene	0.620		50.0	53.9		ug/L		107	69 - 151
Methyl tert-Butyl Ether	ND		50.0	36.6		ug/L		73	56 - 152
Methylene Chloride	ND		50.0	32.8	M8	ug/L		66	71 - 136
4-Methyl-2-pentanone	ND		250	249		ug/L		100	62 - 159
Naphthalene	40.4		50.0	84.3		ug/L		88	56 - 161
n-Propylbenzene	13.6		50.0	68.2		ug/L		109	61 - 167
Styrene	ND		50.0	46.6		ug/L		93	69 - 150

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11E3439-MS1
Matrix: Water
Analysis Batch: U008430

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 11E3439_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
1,1,1,2-Tetrachloroethane	ND		50.0	49.9		ug/L		100	80 - 140
1,1,2,2-Tetrachloroethane	ND		50.0	49.9		ug/L		100	76 - 141
Tetrachloroethene	ND		50.0	47.6		ug/L		95	63 - 155
Toluene	ND		50.0	50.0		ug/L		100	61 - 153
1,2,3-Trichlorobenzene	ND		50.0	44.5		ug/L		89	57 - 155
1,2,4-Trichlorobenzene	ND		50.0	47.5		ug/L		95	64 - 147
1,1,2-Trichloroethane	ND		50.0	50.4		ug/L		101	74 - 138
1,1,1-Trichloroethane	ND		50.0	39.9		ug/L		80	78 - 153
Trichloroethene	ND		50.0	48.1		ug/L		96	74 - 139
Trichlorofluoromethane	ND		50.0	34.1		ug/L		68	53 - 149
1,2,3-Trichloropropane	ND		50.0	45.8		ug/L		92	49 - 148
1,3,5-Trimethylbenzene	10.3		50.0	66.3		ug/L		112	67 - 151
1,2,4-Trimethylbenzene	8.52		50.0	57.7		ug/L		98	69 - 150
Vinyl chloride	ND		50.0	30.9		ug/L		62	53 - 137
Xylenes, total	79.1		150	220		ug/L		94	68 - 158

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*80*		*63 - 140*
Dibromofluoromethane	*77*		*73 - 131*
Toluene-d8	*107*		*80 - 120*
4-Bromofluorobenzene	*108*		*79 - 125*

Lab Sample ID: 11E3439-MSD1
Matrix: Water
Analysis Batch: U008430

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 11E3439_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Acetone	ND		250	203		ug/L		81	56 - 150	27	31
Benzene	0.670		50.0	47.4	R	ug/L		93	65 - 151	25	12
Bromobenzene	ND		50.0	50.7		ug/L		101	69 - 142	0.8	23
Bromochloromethane	ND		50.0	47.3		ug/L		95	64 - 154	26	32
Bromodichloromethane	ND		50.0	52.8	R	ug/L		106	75 - 138	23	13
Bromoform	ND		50.0	38.2		ug/L		76	55 - 153	0.9	18
Bromomethane	ND		50.0	52.0		ug/L		104	13 - 176	31	50
2-Butanone	ND		250	206		ug/L		82	45 - 164	25	37
sec-Butylbenzene	3.36		50.0	60.5		ug/L		114	68 - 159	0.5	21
n-Butylbenzene	5.37		50.0	55.5		ug/L		100	67 - 151	2	11
tert-Butylbenzene	2.02		50.0	53.8		ug/L		104	73 - 153	2	20
Carbon disulfide	ND		50.0	33.0		ug/L		66	33 - 187	27	28
Carbon Tetrachloride	ND		50.0	44.6		ug/L		89	64 - 157	26	26
Chlorobenzene	ND		50.0	47.5		ug/L		95	78 - 136	2	11
Chlorodibromomethane	ND		50.0	43.6		ug/L		87	64 - 145	2	16
Chloroethane	ND		50.0	38.7		ug/L		77	48 - 159	23	35
Chloroform	ND		50.0	51.3		ug/L		103	72 - 145	25	32
Chloromethane	ND		50.0	38.6		ug/L		77	10 - 194	25	34
2-Chlorotoluene	ND		50.0	54.3		ug/L		109	66 - 155	0.2	22
4-Chlorotoluene	ND		50.0	54.1		ug/L		108	69 - 149	1	22
1,2-Dibromo-3-chloropropane	ND		50.0	38.6		ug/L		77	49 - 162	3	21
1,2-Dibromoethane (EDB)	ND		50.0	49.8		ug/L		100	70 - 152	3	10

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11E3439-MSD1
Matrix: Water
Analysis Batch: U008430

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 11E3439_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Dibromomethane	ND		50.0	58.8	R	ug/L		118	75 - 141	24	11
1,4-Dichlorobenzene	ND		50.0	47.3		ug/L		95	75 - 135	0.5	10
1,3-Dichlorobenzene	ND		50.0	48.5		ug/L		97	72 - 146	1	18
1,2-Dichlorobenzene	ND		50.0	49.0		ug/L		98	80 - 136	2	11
Dichlorodifluoromethane	ND		50.0	29.5		ug/L		59	23 - 159	23	32
1,1-Dichloroethane	ND		50.0	48.7		ug/L		97	64 - 154	27	34
1,2-Dichloroethane	ND		50.0	48.9		ug/L		98	72 - 137	22	25
cis-1,2-Dichloroethene	ND		50.0	49.8		ug/L		100	57 - 154	26	32
1,1-Dichloroethene	ND		50.0	43.6		ug/L		87	34 - 151	25	31
trans-1,2-Dichloroethene	ND		50.0	45.4		ug/L		91	57 - 157	25	32
1,3-Dichloropropane	ND		50.0	50.0		ug/L		100	71 - 137	2	20
1,2-Dichloropropane	ND		50.0	60.3	R	ug/L		121	71 - 139	23	11
2,2-Dichloropropane	ND		50.0	51.8	R	ug/L		104	10 - 198	28	11
cis-1,3-Dichloropropene	ND		50.0	49.6		ug/L		99	56 - 156	1	35
trans-1,3-Dichloropropene	ND		50.0	42.9		ug/L		86	47 - 157	0.7	26
1,1-Dichloropropene	ND		50.0	48.7	R	ug/L		97	70 - 155	26	18
Ethylbenzene	80.9		50.0	125		ug/L		88	68 - 157	2	12
Hexachlorobutadiene	ND		50.0	50.6		ug/L		101	47 - 173	0.4	21
2-Hexanone	ND		250	215		ug/L		86	57 - 154	0.6	20
Isopropylbenzene	23.4		50.0	74.1		ug/L		101	69 - 139	0.6	15
p-Isopropyltoluene	0.620		50.0	54.0		ug/L		107	69 - 151	0.1	18
Methyl tert-Butyl Ether	ND		50.0	48.2		ug/L		96	56 - 152	27	32
Methylene Chloride	ND		50.0	41.6		ug/L		83	71 - 136	24	36
4-Methyl-2-pentanone	ND		250	247		ug/L		99	62 - 159	0.9	35
Naphthalene	40.4		50.0	86.0		ug/L		91	56 - 161	2	30
n-Propylbenzene	13.6		50.0	69.0		ug/L		111	61 - 167	1	23
Styrene	ND		50.0	46.1		ug/L		92	69 - 150	1	29
1,1,1,2-Tetrachloroethane	ND		50.0	49.2		ug/L		98	80 - 140	1	11
1,1,2,2-Tetrachloroethane	ND		50.0	49.0		ug/L		98	76 - 141	2	28
Tetrachloroethene	ND		50.0	47.6		ug/L		95	63 - 155	0.1	16
Toluene	ND		50.0	49.9		ug/L		100	61 - 153	0.2	35
1,2,3-Trichlorobenzene	ND		50.0	46.6		ug/L		93	57 - 155	5	28
1,2,4-Trichlorobenzene	ND		50.0	47.6		ug/L		95	64 - 147	0.2	23
1,1,2-Trichloroethane	ND		50.0	49.6		ug/L		99	74 - 138	2	21
1,1,1-Trichloroethane	ND		50.0	51.6		ug/L		103	78 - 153	26	29
Trichloroethene	ND		50.0	60.7	R	ug/L		121	74 - 139	23	11
Trichlorofluoromethane	ND		50.0	43.4		ug/L		87	53 - 149	24	33
1,2,3-Trichloropropane	ND		50.0	45.9		ug/L		92	49 - 148	0.09	25
1,3,5-Trimethylbenzene	10.3		50.0	67.0		ug/L		114	67 - 151	1	21
1,2,4-Trimethylbenzene	8.52		50.0	57.6		ug/L		98	69 - 150	0.3	20
Vinyl chloride	ND		50.0	38.5		ug/L		77	53 - 137	22	32
Xylenes, total	79.1		150	222		ug/L		95	68 - 158	0.7	18

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*104*		*63 - 140*
Dibromofluoromethane	*99*		*73 - 131*
Toluene-d8	*107*		*80 - 120*
4-Bromofluorobenzene	*108*		*79 - 125*

GCMS Volatiles

Analysis Batch: U008378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E1702-BS1	Lab Control Sample	Total	Water	SW846 8260B	11E1702_P
11E1702-BLK1	Method Blank	Total	Water	SW846 8260B	11E1702_P
NUE1019-01	OB-06	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-02	BR-04	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-03	BR-10	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-04	TW-04	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-05	BR-03	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-06	TW-09	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-07	BR-02	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-08	TW-20	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-10	BR-01	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-12	BR-15	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-13	W-5	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-14	W-5 (DUP)	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-16	TW-17	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-18	OB-04	Total	Ground Water	SW846 8260B	11E1702_P
NUE1019-19	OB-08	Total	Ground Water	SW846 8260B	11E1702_P
11E1702-MS1	BR-04	Total	Water	SW846 8260B	11E1702_P
11E1702-MSD1	BR-04	Total	Water	SW846 8260B	11E1702_P

Analysis Batch: U008389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E2289-BS1	Lab Control Sample	Total	Water	SW846 8260B	11E2289_P
11E2289-BSD1	Lab Control Sample Dup	Total	Water	SW846 8260B	11E2289_P
11E2289-BLK1	Method Blank	Total	Water	SW846 8260B	11E2289_P
NUE1019-03 - RE1	BR-10	Total	Ground Water	SW846 8260B	11E2289_P
NUE1019-07 - RE1	BR-02	Total	Ground Water	SW846 8260B	11E2289_P
NUE1019-13 - RE1	W-5	Total	Ground Water	SW846 8260B	11E2289_P
NUE1019-14 - RE1	W-5 (DUP)	Total	Ground Water	SW846 8260B	11E2289_P
NUE1019-16 - RE1	TW-17	Total	Ground Water	SW846 8260B	11E2289_P
NUE1019-18 - RE1	OB-04	Total	Ground Water	SW846 8260B	11E2289_P
NUE1019-19 - RE1	OB-08	Total	Ground Water	SW846 8260B	11E2289_P
11E2289-MS1	BR-10	Total	Water	SW846 8260B	11E2289_P
11E2289-MSD1	BR-10	Total	Water	SW846 8260B	11E2289_P

Analysis Batch: U008430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E3439-BS1	Lab Control Sample	Total	Water	SW846 8260B	11E3439_P
11E3439-BLK1	Method Blank	Total	Water	SW846 8260B	11E3439_P
NUE1019-09	QATB01	Total	Water	SW846 8260B	11E3439_P
NUE1019-11	QAFB01	Total	Water	SW846 8260B	11E3439_P
NUE1019-15	QARB01	Total	Water	SW846 8260B	11E3439_P
11E3439-MS1	Matrix Spike	Total	Water	SW846 8260B	11E3439_P
11E3439-MSD1	Matrix Spike Duplicate	Total	Water	SW846 8260B	11E3439_P

Prep Batch: 11E1702_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E1702-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11E1702-BLK1	Method Blank	Total	Water	EPA 5030B	
NUE1019-01	OB-06	Total	Ground Water	EPA 5030B	
NUE1019-02	BR-04	Total	Ground Water	EPA 5030B	
NUE1019-03	BR-10	Total	Ground Water	EPA 5030B	

GCMS Volatiles (Continued)

Prep Batch: 11E1702_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NUE1019-04	TW-04	Total	Ground Water	EPA 5030B	
NUE1019-05	BR-03	Total	Ground Water	EPA 5030B	
NUE1019-06	TW-09	Total	Ground Water	EPA 5030B	
NUE1019-07	BR-02	Total	Ground Water	EPA 5030B	
NUE1019-08	TW-20	Total	Ground Water	EPA 5030B	
NUE1019-10	BR-01	Total	Ground Water	EPA 5030B	
NUE1019-12	BR-15	Total	Ground Water	EPA 5030B	
NUE1019-13	W-5	Total	Ground Water	EPA 5030B	
NUE1019-14	W-5 (DUP)	Total	Ground Water	EPA 5030B	
NUE1019-16	TW-17	Total	Ground Water	EPA 5030B	
NUE1019-18	OB-04	Total	Ground Water	EPA 5030B	
NUE1019-19	OB-08	Total	Ground Water	EPA 5030B	
11E1702-MS1	BR-04	Total	Water	EPA 5030B	
11E1702-MSD1	BR-04	Total	Water	EPA 5030B	

Prep Batch: 11E2289_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E2289-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11E2289-BSD1	Lab Control Sample Dup	Total	Water	EPA 5030B	
11E2289-BLK1	Method Blank	Total	Water	EPA 5030B	
NUE1019-03 - RE1	BR-10	Total	Ground Water	EPA 5030B	
NUE1019-07 - RE1	BR-02	Total	Ground Water	EPA 5030B	
NUE1019-13 - RE1	W-5	Total	Ground Water	EPA 5030B	
NUE1019-14 - RE1	W-5 (DUP)	Total	Ground Water	EPA 5030B	
NUE1019-16 - RE1	TW-17	Total	Ground Water	EPA 5030B	
NUE1019-18 - RE1	OB-04	Total	Ground Water	EPA 5030B	
NUE1019-19 - RE1	OB-08	Total	Ground Water	EPA 5030B	
11E2289-MS1	BR-10	Total	Water	EPA 5030B	
11E2289-MSD1	BR-10	Total	Water	EPA 5030B	

Prep Batch: 11E3439_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11E3439-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11E3439-BLK1	Method Blank	Total	Water	EPA 5030B	
NUE1019-09	QATB01	Total	Water	EPA 5030B	
NUE1019-11	QAFB01	Total	Water	EPA 5030B	
NUE1019-15	QARB01	Total	Water	EPA 5030B	
11E3439-MS1	Matrix Spike	Total	Water	EPA 5030B	
11E3439-MSD1	Matrix Spike Duplicate	Total	Water	EPA 5030B	

Client Sample ID: OB-06

Lab Sample ID: NUE1019-01

Date Collected: 05/03/11 11:50

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 13:36	JJR	TAL NSH

Client Sample ID: BR-04

Lab Sample ID: NUE1019-02

Date Collected: 05/03/11 13:20

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 14:02	JJR	TAL NSH

Client Sample ID: BR-10

Lab Sample ID: NUE1019-03

Date Collected: 05/03/11 14:20

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 14:27	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11E2289_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10.0	U008389	05/12/11 15:14	JJR	TAL NSH

Client Sample ID: TW-04

Lab Sample ID: NUE1019-04

Date Collected: 05/03/11 15:20

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 14:53	JJR	TAL NSH

Client Sample ID: BR-03

Lab Sample ID: NUE1019-05

Date Collected: 05/03/11 16:35

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 15:18	JJR	TAL NSH

Client Sample ID: TW-09

Lab Sample ID: NUE1019-06

Date Collected: 05/03/11 17:55

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 15:44	JJR	TAL NSH

Client Sample ID: BR-02

Lab Sample ID: NUE1019-07

Date Collected: 05/04/11 09:20

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 16:09	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11E2289_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	5.00	U008389	05/12/11 15:39	JJR	TAL NSH

Client Sample ID: TW-20

Lab Sample ID: NUE1019-08

Date Collected: 05/04/11 10:30

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 16:35	JJR	TAL NSH

Client Sample ID: QATB01

Lab Sample ID: NUE1019-09

Date Collected: 05/03/11 08:00

Matrix: Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E3439_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008430	05/13/11 14:37	JJR	TAL NSH

Client Sample ID: BR-01

Lab Sample ID: NUE1019-10

Date Collected: 05/04/11 12:40

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 17:01	JJR	TAL NSH

Client Sample ID: QAFB01

Lab Sample ID: NUE1019-11

Date Collected: 05/04/11 07:50

Matrix: Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E3439_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008430	05/13/11 15:05	JJR	TAL NSH

Client Sample ID: BR-15

Lab Sample ID: NUE1019-12

Date Collected: 05/04/11 15:00

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 17:26	JJR	TAL NSH

Client Sample ID: W-5

Lab Sample ID: NUE1019-13

Date Collected: 05/04/11 17:30

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 17:52	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11E2289_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10.0	U008389	05/12/11 16:05	JJR	TAL NSH

Client Sample ID: W-5 (DUP)

Lab Sample ID: NUE1019-14

Date Collected: 05/04/11 17:30

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 18:17	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11E2289_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10.0	U008389	05/12/11 16:30	JJR	TAL NSH

Client Sample ID: QARB01

Lab Sample ID: NUE1019-15

Date Collected: 05/04/11 17:55

Matrix: Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E3439_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008430	05/13/11 15:33	JJR	TAL NSH

Client Sample ID: TW-17

Lab Sample ID: NUE1019-16

Date Collected: 05/05/11 08:00

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 18:42	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11E2289_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	5.00	U008389	05/12/11 16:56	JJR	TAL NSH

Client Sample ID: OB-04

Lab Sample ID: NUE1019-18

Date Collected: 05/03/11 10:25

Matrix: Ground Water

Date Received: 05/06/11 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 19:08	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11E2289_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	5.00	U008389	05/12/11 17:21	JJR	TAL NSH

Lab Chronicle

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Client Sample ID: OB-08
Date Collected: 05/04/11 11:35
Date Received: 05/06/11 09:00

Lab Sample ID: NUE1019-19
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11E1702_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U008378	05/11/11 19:33	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11E2289_P	05/07/11 09:13	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	5.00	U008389	05/12/11 17:47	JJR	TAL NSH

Laboratory References:
TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Method Summary

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Method	Method Description	Protocol	Laboratory
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Certification Summary

Client: MACTEC Engineering & Consulting, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUE1019

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	A2LA	WY UST		453.07
TestAmerica Nashville	AIHA	IHLAP		100790
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska	Alaska UST	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas	State Program	6	88-0737
TestAmerica Nashville	CALA	CALA		3744
TestAmerica Nashville	California	NELAC	9	1168CA
TestAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	Kentucky UST	4	19
TestAmerica Nashville	Kentucky	State Program	4	90038
TestAmerica Nashville	Louisiana	NELAC	6	LA100011
TestAmerica Nashville	Louisiana	NELAC	6	30613
TestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
TestAmerica Nashville	Minnesota	NELAC	5	047-999-345
TestAmerica Nashville	Mississippi	State Program	4	N/A
TestAmerica Nashville	Montana	MT DEQ UST	8	NA
TestAmerica Nashville	Nevada	State Program	9	TN00032
TestAmerica Nashville	New Hampshire	NELAC	1	2963
TestAmerica Nashville	New Jersey	NELAC	2	TN965
TestAmerica Nashville	New York	NELAC	2	11342
TestAmerica Nashville	North Carolina	North Carolina DENR	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio	OVAP	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAC	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAC	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	Tennessee	State Program	4	2008
TestAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
TestAmerica Nashville	USDA	USDA		S-48469
TestAmerica Nashville	Utah	NELAC	8	TAN
TestAmerica Nashville	Virginia	NELAC Secondary AB	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia	West Virginia DEP	3	219
TestAmerica Nashville	Wisconsin	State Program	5	998020430

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica
LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER REC

NUE1019

Cooler Received/Opened On 05/06/2011 @ 09:00

1. Tracking # 4644 (last 4 digits, FedEx)

Courier: FEDEX IR Gun ID 97310166

2. Temperature of rep. sample or temp blank when opened: 5.8 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES..(NO)..NA

4. Were custody seals on outside of cooler? (YES)..NO...NA

If yes, how many and where: 2 - Front

5. Were the seals intact, signed, and dated correctly? (YES)..NO...NA

6. Were custody papers inside cooler? (YES)..NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) P.H.

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)..NO...NA

12. Did all container labels and tags agree with custody papers? (YES)..NO...NA

13a. Were VOA vials received? (YES)...NO...NA

b. Was there any observable headspace present in any VOA vial? YES..(NO)..NA

14. Was there a Trip Blank in this cooler? (YES)..NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) P.H.

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

16. Was residual chlorine present? YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) P.H.

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) P.H.

I certify that I attached a label with the unique LIMS number to each container (intial) P.H. SK

21. Were there Non-Conformance issues at login? YES..(NO) Was a PIPE generated? YES..(NO)..#_____

BIS - Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 6/24/09

07/21/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
","Reg District (CA)")

NUE1019
05/20/11 23:59

Client: MACTEC Engineering & Consulting, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Brandon Shaw
SamplerSignature:

TA Account #: 63036 PO #: ~~801013378~~ 2011008S4
Invoice to: MACTEC Engineering & Consulting (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-~~16~~ 18
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B ~~Extended~~ List VOA Reduced	Full 8260B VOC List	VOC-624	RUSH TAT (Pre Schedule)*
QATB01	5-3-11	0800	2	X					X											X		X		
BR-01	5-4-11	1240	3	X					X						X						X			
QAFB01	5-3-11	0750	3	X					X											X		X		
BR-15	5-4-11	1500	3	X					X						X						X			
W-5	5-4-11	1730	3	X					X						X						X			
W-5 (DUP)	5-4-11	1730	3	X					X						X						X			
QARB01	5-4-11	1755	3	X					X											X		X		
MW-17	5-5-11	0800	3	X					X						X						X			
IDW-1	5-5-11	1000	3	X					X							X							X	

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.
There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: *BO #* 24432
Reduced List: DCE, TCE, PCE, cis and trans 1,2DCE, Vinyl Chloride

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
	5-5-11	1345						

Shipped Via:	Shipped Via:	QC Deliverables (Please Circle One): Level 2 Level 3 Level 4 Site Specific	Date Due of Report:
Received for TestAmerica by:	Date: Time:	Temperature Upon Receipt: Sample Containers Intact? Y N; VOCs Free of Headspace? Y N	If site specific, please preschedule w TestAmerica Project Manager or attach specific instructions

07/21/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
","Reg District (CA)")

NUE1019
05/20/11 23:59

Client: MACTEC Engineering & Consulting, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Brandon Shaw
SamplerSignature:

TA Account #: 63036 PO #: ~~201013379~~ 20110085?
Invoice to: MACTEC Engineering & Consulting (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B Extended List VOA (Reduced)	RUSH TAT (Pre Schedule)
BB-06	5-3-11	1150	3	X					X						X						X	
BR-04		1320	3	X					X						X						X	
BR-04(MS)		1320	3	X					X						X						X	
BR-04(MSD)		1320	3	X					X						X						X	
BR-10		1420	3	X					X						X						X	
TW-04		1520	3	X					X						X						X	
BR-03		1635	3	X					X						X						X	
TW-09		1755	3	X					X						X						X	
BR-02	5-4-11	0920	3	X					X						X						X	
TW-20	5-4-11	1030	3	X					X						X						X	

Reduced List: DCE, TCE, PCE, cis and trans 1,2DCE, Vinyl Chloride

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.

* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.

There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: *BO # 24432*

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
Shipped Via:			Shipped Via:			QC Deliverables (Please Circle One):		
Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact? Y N		Level 2 Level 3 Level 4 Site Specific		Date Due of Report:
				VOC's Free of Headspace? Y N		If site specific please preschedule w/ TestAmerica Project Manager or attach specific instructions		

07/21/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404

NUE1019
05/20/11 23:59

Page 3 of 3

Client: MACTEC Engineering & Consulting, Inc. (4997) ',"Reg District (CA)")
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Brandon Shaw
SamplerSignature:

TA Account #: 63036 PO #: ~~201013379~~ 20110854
Invoice to: MACTEC Engineering & Consulting (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	8260B ~~Extended~~ Reduced List VOA (*) see highlighted note below	RUSH TAT (Pre Schedule)*
IB-04	5-3-11	1025	3	x					x						x						x	
OB-08	5-4-11	1135	3	x					x						x						x	

Preservative / Matrix / Analyze for:

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.
There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: *BO # 24432*
Reduced List: DCE, TCE, PCE, cis and trans 1,2DCE, Vinyl Chloride
please contact Joe Deatherage for further questions

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
	5-[illegible]	1615						

Shipped Via: FedEx
Shipped Via:

Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact? Y N / VOCs Free of Headspace? Y N	QC Deliverables (Please Circle One): Level 2 Level 3 Level 4 Site Specific. If site specific, please pre-schedule w/ TestAmerica Project Manager or attach specific instructions	Date Due of Report:

12-30 / 19-31 D.H. 5/7/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Road
Nashville, TN 37204
Tel: 800-765-0980

TestAmerica Job ID: NUK0699
Client Project/Site: 3031052006-16
Client Project Description: Former Taylor Instruments

For:
AMEC E&I, Inc. (4997)
9725 Cogdill Rd.
Knoxville, TN 37932

Attn: Joe Deatherage

Authorized for release by:
11/15/2011 4:29:50 PM

Shali Brown
Project Manager
shali.brown@testamericainc.com

Table of Contents

Sample Summary

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NUK0699-01	OB-04	Ground Water	11/01/11 11:25	11/04/11 08:00
NUK0699-02	OB-06	Ground Water	11/01/11 12:44	11/04/11 08:00
NUK0699-03	BR-04	Ground Water	11/01/11 14:20	11/04/11 08:00
NUK0699-04	BR-10	Ground Water	11/01/11 15:16	11/04/11 08:00
NUK0699-05	TW-04	Ground Water	11/01/11 16:59	11/04/11 08:00
NUK0699-06	BR-03	Ground Water	11/02/11 09:40	11/04/11 08:00
NUK0699-07	TW-09	Ground Water	11/02/11 10:50	11/04/11 08:00
NUK0699-08	BR-02	Ground Water	11/02/11 12:08	11/04/11 08:00
NUK0699-09	TW-20	Ground Water	11/02/11 13:46	11/04/11 08:00
NUK0699-10	OB-08	Ground Water	11/02/11 15:02	11/04/11 08:00
NUK0699-11	QAFB01	Ground Water	11/02/11 15:30	11/04/11 08:00
NUK0699-12	BR-15	Ground Water	11/02/11 18:52	11/04/11 08:00
NUK0699-13	QARB-01	Ground Water	11/02/11 19:05	11/04/11 08:00
NUK0699-14	QATB01	Water	11/02/11 00:01	11/04/11 08:00
NUK0699-15	BR-01	Ground Water	11/03/11 09:15	11/04/11 08:00
NUK0699-16	TW-17	Ground Water	11/03/11 10:24	11/04/11 08:00
NUK0699-17	W-5	Ground Water	11/03/11 11:58	11/04/11 08:00
NUK0699-18	W-5 Dup	Ground Water	11/03/11 11:58	11/04/11 08:00

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
M8	The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: OB-04
Date Collected: 11/01/11 11:25
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-01
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 16:22	1.00
trans-1,2-Dichloroethene	**2.51**		1.00		ug/L		11/04/11 17:40	11/07/11 16:22	1.00
cis-1,2-Dichloroethene	**51.1**		1.00		ug/L		11/04/11 17:40	11/07/11 16:22	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 16:22	1.00
Trichloroethene	**5.68**		1.00		ug/L		11/04/11 17:40	11/07/11 16:22	1.00
Vinyl chloride	**33.2**		1.00		ug/L		11/04/11 17:40	11/07/11 16:22	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 16:22*	*1.00*
Dibromofluoromethane	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 16:22*	*1.00*
Toluene-d8	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 16:22*	*1.00*
4-Bromofluorobenzene	*100*		*70 - 130*	*11/04/11 17:40*	*11/07/11 16:22*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: OB-06
Date Collected: 11/01/11 12:44
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-02
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 16:47	1.00
trans-1,2-Dichloroethene	**1.28**		1.00		ug/L		11/04/11 17:40	11/07/11 16:47	1.00
cis-1,2-Dichloroethene	**46.5**		1.00		ug/L		11/04/11 17:40	11/07/11 16:47	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 16:47	1.00
Trichloroethene	**18.9**		1.00		ug/L		11/04/11 17:40	11/07/11 16:47	1.00
Vinyl chloride	**13.8**		1.00		ug/L		11/04/11 17:40	11/07/11 16:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 16:47*	*1.00*
Dibromofluoromethane	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 16:47*	*1.00*
Toluene-d8	*98*		*70 - 130*	*11/04/11 17:40*	*11/07/11 16:47*	*1.00*
4-Bromofluorobenzene	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 16:47*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: BR-04
Date Collected: 11/01/11 14:20
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-03
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 17:13	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 17:13	1.00
cis-1,2-Dichloroethene	**5.02**		1.00		ug/L		11/04/11 17:40	11/07/11 17:13	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 17:13	1.00
Trichloroethene	**4.29**		1.00		ug/L		11/04/11 17:40	11/07/11 17:13	1.00
Vinyl chloride	ND		1.00		ug/L		11/04/11 17:40	11/07/11 17:13	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 17:13*	*1.00*
Dibromofluoromethane	*101*		*70 - 130*	*11/04/11 17:40*	*11/07/11 17:13*	*1.00*
Toluene-d8	*100*		*70 - 130*	*11/04/11 17:40*	*11/07/11 17:13*	*1.00*
4-Bromofluorobenzene	*100*		*70 - 130*	*11/04/11 17:40*	*11/07/11 17:13*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: BR-10
Date Collected: 11/01/11 15:16
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-04
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 17:39	1.00
trans-1,2-Dichloroethene	**25.3**		1.00		ug/L		11/04/11 17:40	11/07/11 17:39	1.00
Tetrachloroethene	**1.35**		1.00		ug/L		11/04/11 17:40	11/07/11 17:39	1.00
Vinyl chloride	**2.87**		1.00		ug/L		11/04/11 17:40	11/07/11 17:39	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 17:39*	*1.00*
Dibromofluoromethane	*101*		*70 - 130*	*11/04/11 17:40*	*11/07/11 17:39*	*1.00*
Toluene-d8	*97*		*70 - 130*	*11/04/11 17:40*	*11/07/11 17:39*	*1.00*
4-Bromofluorobenzene	*101*		*70 - 130*	*11/04/11 17:40*	*11/07/11 17:39*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**231**		10.0		ug/L		11/04/11 17:40	11/09/11 05:11	10.0
Trichloroethene	**417**		10.0		ug/L		11/04/11 17:40	11/09/11 05:11	10.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*	*11/04/11 17:40*	*11/09/11 05:11*	*10.0*
Dibromofluoromethane	*100*		*70 - 130*	*11/04/11 17:40*	*11/09/11 05:11*	*10.0*
Toluene-d8	*98*		*70 - 130*	*11/04/11 17:40*	*11/09/11 05:11*	*10.0*
4-Bromofluorobenzene	*102*		*70 - 130*	*11/04/11 17:40*	*11/09/11 05:11*	*10.0*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: TW-04
Date Collected: 11/01/11 16:59
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-05
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:04	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:04	1.00
cis-1,2-Dichloroethene	**2.44**		1.00		ug/L		11/04/11 17:40	11/07/11 18:04	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:04	1.00
Trichloroethene	**8.90**		1.00		ug/L		11/04/11 17:40	11/07/11 18:04	1.00
Vinyl chloride	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:04*	*1.00*
Dibromofluoromethane	*101*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:04*	*1.00*
Toluene-d8	*98*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:04*	*1.00*
4-Bromofluorobenzene	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:04*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: BR-03
Date Collected: 11/02/11 09:40
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-06
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:30	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:30	1.00
cis-1,2-Dichloroethene	**37.1**		1.00		ug/L		11/04/11 17:40	11/07/11 18:30	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:30	1.00
Trichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:30	1.00
Vinyl chloride	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:30	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:30*	*1.00*
Dibromofluoromethane	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:30*	*1.00*
Toluene-d8	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:30*	*1.00*
4-Bromofluorobenzene	*104*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:30*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: TW-09
Date Collected: 11/02/11 10:50
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-07
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:56	1.00
trans-1,2-Dichloroethene	**7.07**		1.00		ug/L		11/04/11 17:40	11/07/11 18:56	1.00
cis-1,2-Dichloroethene	**4.23**		1.00		ug/L		11/04/11 17:40	11/07/11 18:56	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 18:56	1.00
Trichloroethene	**1.24**		1.00		ug/L		11/04/11 17:40	11/07/11 18:56	1.00
Vinyl chloride	**6.26**		1.00		ug/L		11/04/11 17:40	11/07/11 18:56	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:56*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:56*	*1.00*
Toluene-d8	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:56*	*1.00*
4-Bromofluorobenzene	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 18:56*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: BR-02
Date Collected: 11/02/11 12:08
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-08
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	4.35		1.00		ug/L		11/04/11 17:40	11/07/11 19:21	1.00
trans-1,2-Dichloroethene	24.6		1.00		ug/L		11/04/11 17:40	11/07/11 19:21	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 19:21	1.00
Vinyl chloride	8.25		1.00		ug/L		11/04/11 17:40	11/07/11 19:21	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*104*		*70 - 130*	*11/04/11 17:40*	*11/07/11 19:21*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 19:21*	*1.00*
Toluene-d8	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 19:21*	*1.00*
4-Bromofluorobenzene	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 19:21*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	483		20.0		ug/L		11/04/11 17:40	11/09/11 05:36	20.0
Trichloroethene	2230		20.0		ug/L		11/04/11 17:40	11/09/11 05:36	20.0

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*104*		*70 - 130*	*11/04/11 17:40*	*11/09/11 05:36*	*20.0*
Dibromofluoromethane	*102*		*70 - 130*	*11/04/11 17:40*	*11/09/11 05:36*	*20.0*
Toluene-d8	*99*		*70 - 130*	*11/04/11 17:40*	*11/09/11 05:36*	*20.0*
4-Bromofluorobenzene	*104*		*70 - 130*	*11/04/11 17:40*	*11/09/11 05:36*	*20.0*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: TW-20
Date Collected: 11/02/11 13:46
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-09
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 19:47	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 19:47	1.00
cis-1,2-Dichloroethene	**8.30**		1.00		ug/L		11/04/11 17:40	11/07/11 19:47	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 19:47	1.00
Trichloroethene	**88.8**		1.00		ug/L		11/04/11 17:40	11/07/11 19:47	1.00
Vinyl chloride	ND		1.00		ug/L		11/04/11 17:40	11/07/11 19:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 19:47*	*1.00*
Dibromofluoromethane	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 19:47*	*1.00*
Toluene-d8	*97*		*70 - 130*	*11/04/11 17:40*	*11/07/11 19:47*	*1.00*
4-Bromofluorobenzene	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 19:47*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: OB-08
Date Collected: 11/02/11 15:02
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-10
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:13	1.00
trans-1,2-Dichloroethene	**15.5**		1.00		ug/L		11/04/11 17:40	11/07/11 20:13	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:13	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:13	1.00
Trichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:13	1.00
Vinyl chloride	**4.73**		1.00		ug/L		11/04/11 17:40	11/07/11 20:13	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 20:13*	*1.00*
Dibromofluoromethane	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 20:13*	*1.00*
Toluene-d8	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 20:13*	*1.00*
4-Bromofluorobenzene	*106*		*70 - 130*	*11/04/11 17:40*	*11/07/11 20:13*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: QAFB01
Date Collected: 11/02/11 15:30
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-11
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:38	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:38	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:38	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:38	1.00
Trichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:38	1.00
Vinyl chloride	ND		1.00		ug/L		11/04/11 17:40	11/07/11 20:38	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*104*		*70 - 130*	*11/04/11 17:40*	*11/07/11 20:38*	*1.00*
Dibromofluoromethane	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 20:38*	*1.00*
Toluene-d8	*100*		*70 - 130*	*11/04/11 17:40*	*11/07/11 20:38*	*1.00*
4-Bromofluorobenzene	*104*		*70 - 130*	*11/04/11 17:40*	*11/07/11 20:38*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: BR-15
Date Collected: 11/02/11 18:52
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-12
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:04	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:04	1.00
cis-1,2-Dichloroethene	**8.81**		1.00		ug/L		11/04/11 17:40	11/07/11 21:04	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:04	1.00
Trichloroethene	**1.01**		1.00		ug/L		11/04/11 17:40	11/07/11 21:04	1.00
Vinyl chloride	**10.8**		1.00		ug/L		11/04/11 17:40	11/07/11 21:04	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:04*	*1.00*
Dibromofluoromethane	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:04*	*1.00*
Toluene-d8	*97*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:04*	*1.00*
4-Bromofluorobenzene	*101*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:04*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: QARB-01
Date Collected: 11/02/11 19:05
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-13
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:30	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:30	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:30	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:30	1.00
Trichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:30	1.00
Vinyl chloride	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:30	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*100*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:30*	*1.00*
Dibromofluoromethane	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:30*	*1.00*
Toluene-d8	*98*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:30*	*1.00*
4-Bromofluorobenzene	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:30*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: QATB01
Date Collected: 11/02/11 00:01
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-14
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:56	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:56	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:56	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:56	1.00
Trichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:56	1.00
Vinyl chloride	ND		1.00		ug/L		11/04/11 17:40	11/07/11 21:56	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*101*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:56*	*1.00*
Dibromofluoromethane	*100*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:56*	*1.00*
Toluene-d8	*98*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:56*	*1.00*
4-Bromofluorobenzene	*101*		*70 - 130*	*11/04/11 17:40*	*11/07/11 21:56*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: BR-01
Date Collected: 11/03/11 09:15
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-15
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 22:21	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 22:21	1.00
cis-1,2-Dichloroethene	**41.6**		1.00		ug/L		11/04/11 17:40	11/07/11 22:21	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 22:21	1.00
Trichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 22:21	1.00
Vinyl chloride	**3.61**		1.00		ug/L		11/04/11 17:40	11/07/11 22:21	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*70 - 130*	*11/04/11 17:40*	*11/07/11 22:21*	*1.00*
Dibromofluoromethane	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 22:21*	*1.00*
Toluene-d8	*100*		*70 - 130*	*11/04/11 17:40*	*11/07/11 22:21*	*1.00*
4-Bromofluorobenzene	*107*		*70 - 130*	*11/04/11 17:40*	*11/07/11 22:21*	*1.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: TW-17
Date Collected: 11/03/11 10:24
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-16
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 22:47	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 22:47	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 22:47	1.00
Trichloroethene	**21.6**		1.00		ug/L		11/04/11 17:40	11/07/11 22:47	1.00
Vinyl chloride	**4.92**		1.00		ug/L		11/04/11 17:40	11/07/11 22:47	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*104*		*70 - 130*	*11/04/11 17:40*	*11/07/11 22:47*	*1.00*
Dibromofluoromethane	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 22:47*	*1.00*
Toluene-d8	*100*		*70 - 130*	*11/04/11 17:40*	*11/07/11 22:47*	*1.00*
4-Bromofluorobenzene	*97*		*70 - 130*	*11/04/11 17:40*	*11/07/11 22:47*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**310**		5.00		ug/L		11/04/11 17:40	11/09/11 03:54	5.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*	*11/04/11 17:40*	*11/09/11 03:54*	*5.00*
Dibromofluoromethane	*101*		*70 - 130*	*11/04/11 17:40*	*11/09/11 03:54*	*5.00*
Toluene-d8	*99*		*70 - 130*	*11/04/11 17:40*	*11/09/11 03:54*	*5.00*
4-Bromofluorobenzene	*102*		*70 - 130*	*11/04/11 17:40*	*11/09/11 03:54*	*5.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: W-5
Date Collected: 11/03/11 11:58
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-17
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 23:13	1.00
trans-1,2-Dichloroethene	**1.41**		1.00		ug/L		11/04/11 17:40	11/07/11 23:13	1.00
cis-1,2-Dichloroethene	**130**		1.00		ug/L		11/04/11 17:40	11/07/11 23:13	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 23:13	1.00
Vinyl chloride	**12.5**		1.00		ug/L		11/04/11 17:40	11/07/11 23:13	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 23:13*	*1.00*
Dibromofluoromethane	*102*		*70 - 130*	*11/04/11 17:40*	*11/07/11 23:13*	*1.00*
Toluene-d8	*98*		*70 - 130*	*11/04/11 17:40*	*11/07/11 23:13*	*1.00*
4-Bromofluorobenzene	*104*		*70 - 130*	*11/04/11 17:40*	*11/07/11 23:13*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**293**		5.00		ug/L		11/04/11 17:40	11/09/11 04:20	5.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*103*		*70 - 130*	*11/04/11 17:40*	*11/09/11 04:20*	*5.00*
Dibromofluoromethane	*99*		*70 - 130*	*11/04/11 17:40*	*11/09/11 04:20*	*5.00*
Toluene-d8	*99*		*70 - 130*	*11/04/11 17:40*	*11/09/11 04:20*	*5.00*
4-Bromofluorobenzene	*108*		*70 - 130*	*11/04/11 17:40*	*11/09/11 04:20*	*5.00*

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: W-5 Dup
Date Collected: 11/03/11 11:58
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-18
Matrix: Ground Water

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 23:38	1.00
trans-1,2-Dichloroethene	**1.74**		1.00		ug/L		11/04/11 17:40	11/07/11 23:38	1.00
cis-1,2-Dichloroethene	**153**		1.00		ug/L		11/04/11 17:40	11/07/11 23:38	1.00
Tetrachloroethene	ND		1.00		ug/L		11/04/11 17:40	11/07/11 23:38	1.00
Vinyl chloride	**17.0**		1.00		ug/L		11/04/11 17:40	11/07/11 23:38	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*104*		*70 - 130*	*11/04/11 17:40*	*11/07/11 23:38*	*1.00*
Dibromofluoromethane	*105*		*70 - 130*	*11/04/11 17:40*	*11/07/11 23:38*	*1.00*
Toluene-d8	*99*		*70 - 130*	*11/04/11 17:40*	*11/07/11 23:38*	*1.00*
4-Bromofluorobenzene	*101*		*70 - 130*	*11/04/11 17:40*	*11/07/11 23:38*	*1.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**325**		5.00		ug/L		11/04/11 17:40	11/09/11 04:45	5.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*105*		*70 - 130*	*11/04/11 17:40*	*11/09/11 04:45*	*5.00*
Dibromofluoromethane	*99*		*70 - 130*	*11/04/11 17:40*	*11/09/11 04:45*	*5.00*
Toluene-d8	*98*		*70 - 130*	*11/04/11 17:40*	*11/09/11 04:45*	*5.00*
4-Bromofluorobenzene	*105*		*70 - 130*	*11/04/11 17:40*	*11/09/11 04:45*	*5.00*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 11K1382-BLK1
Matrix: Water
Analysis Batch: U019883

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11K1382_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/05/11 12:21	11/09/11 01:46	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/05/11 12:21	11/09/11 01:46	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		11/05/11 12:21	11/09/11 01:46	1.00
Tetrachloroethene	ND		1.00		ug/L		11/05/11 12:21	11/09/11 01:46	1.00
Trichloroethene	ND		1.00		ug/L		11/05/11 12:21	11/09/11 01:46	1.00
Vinyl chloride	ND		1.00		ug/L		11/05/11 12:21	11/09/11 01:46	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*104*		*70 - 130*	*11/05/11 12:21*	*11/09/11 01:46*	*1.00*
Dibromofluoromethane	*104*		*70 - 130*	*11/05/11 12:21*	*11/09/11 01:46*	*1.00*
Toluene-d8	*98*		*70 - 130*	*11/05/11 12:21*	*11/09/11 01:46*	*1.00*
4-Bromofluorobenzene	*108*		*70 - 130*	*11/05/11 12:21*	*11/09/11 01:46*	*1.00*

Lab Sample ID: 11K1382-BS1
Matrix: Water
Analysis Batch: U019883

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11K1382_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	23.1		ug/L		115	79 - 124
trans-1,2-Dichloroethene	20.0	23.7		ug/L		118	79 - 126
cis-1,2-Dichloroethene	20.0	23.5		ug/L		118	76 - 125
Tetrachloroethene	20.0	23.8		ug/L		119	80 - 126
Trichloroethene	20.0	22.7		ug/L		114	80 - 123
Vinyl chloride	20.0	17.2		ug/L		86	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*101*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*97*		*70 - 130*

Lab Sample ID: 11K1382-MS1
Matrix: Water
Analysis Batch: U019883

Client Sample ID: BR-10
Prep Type: Total
Prep Batch: 11K1382_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		200	163		ug/L		82	70 - 142
trans-1,2-Dichloroethene	19.2		200	181		ug/L		81	66 - 143
cis-1,2-Dichloroethene	231		200	441		ug/L		105	68 - 138
Tetrachloroethene	ND		200	179		ug/L		90	72 - 145
Trichloroethene	417		200	646		ug/L		114	73 - 144
Vinyl chloride	ND		200	103	M8	ug/L		51	56 - 129

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*102*		*70 - 130*
Dibromofluoromethane	*103*		*70 - 130*
Toluene-d8	*99*		*70 - 130*
4-Bromofluorobenzene	*100*		*70 - 130*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11K1382-MSD1 — **Client Sample ID: BR-10**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U019883 — **Prep Batch: 11K1382_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		200	175		ug/L		88	70 - 142	7	17
trans-1,2-Dichloroethene	19.2		200	200		ug/L		90	66 - 143	10	16
cis-1,2-Dichloroethene	231		200	443		ug/L		106	68 - 138	0.5	17
Tetrachloroethene	ND		200	187		ug/L		94	72 - 145	4	16
Trichloroethene	417		200	643		ug/L		113	73 - 144	0.4	17
Vinyl chloride	ND		200	112		ug/L		56	56 - 129	9	17

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*102*		*70 - 130*
Dibromofluoromethane	*104*		*70 - 130*
Toluene-d8	*98*		*70 - 130*
4-Bromofluorobenzene	*94*		*70 - 130*

Lab Sample ID: 11K2458-BLK1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U019811 — **Prep Batch: 11K2458_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L		11/07/11 00:00	11/07/11 15:22	1.00
trans-1,2-Dichloroethene	ND		1.00		ug/L		11/07/11 00:00	11/07/11 15:22	1.00
cis-1,2-Dichloroethene	ND		1.00		ug/L		11/07/11 00:00	11/07/11 15:22	1.00
Tetrachloroethene	ND		1.00		ug/L		11/07/11 00:00	11/07/11 15:22	1.00
Trichloroethene	ND		1.00		ug/L		11/07/11 00:00	11/07/11 15:22	1.00
Vinyl chloride	ND		1.00		ug/L		11/07/11 00:00	11/07/11 15:22	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*	*11/07/11 00:00*	*11/07/11 15:22*	*1.00*
Dibromofluoromethane	*101*		*70 - 130*	*11/07/11 00:00*	*11/07/11 15:22*	*1.00*
Toluene-d8	*99*		*70 - 130*	*11/07/11 00:00*	*11/07/11 15:22*	*1.00*
4-Bromofluorobenzene	*106*		*70 - 130*	*11/07/11 00:00*	*11/07/11 15:22*	*1.00*

Lab Sample ID: 11K2458-BS1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total**
Analysis Batch: U019811 — **Prep Batch: 11K2458_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	20.7		ug/L		104	79 - 124
trans-1,2-Dichloroethene	20.0	21.0		ug/L		105	79 - 126
cis-1,2-Dichloroethene	20.0	20.5		ug/L		103	76 - 125
Tetrachloroethene	20.0	20.9		ug/L		105	80 - 126
Trichloroethene	20.0	20.3		ug/L		101	80 - 123
Vinyl chloride	20.0	17.9		ug/L		90	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4	*96*		*70 - 130*
Dibromofluoromethane	*101*		*70 - 130*
Toluene-d8	*100*		*70 - 130*
4-Bromofluorobenzene	*98*		*70 - 130*

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11K2458-MS1
Matrix: Water
Analysis Batch: U019811

Client Sample ID: BR-04
Prep Type: Total
Prep Batch: 11K2458_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		20.0	18.5		ug/L		92	70 - 142
trans-1,2-Dichloroethene	ND		20.0	17.2		ug/L		86	66 - 143
cis-1,2-Dichloroethene	5.02		20.0	23.9		ug/L		94	68 - 138
Tetrachloroethene	ND		20.0	18.4		ug/L		92	72 - 145
Trichloroethene	4.29		20.0	22.2		ug/L		90	73 - 144
Vinyl chloride	ND		20.0	11.8		ug/L		59	56 - 129

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1,2-Dichloroethane-d4	*97*		*70 - 130*
Dibromofluoromethane	*101*		*70 - 130*
Toluene-d8	*100*		*70 - 130*
4-Bromofluorobenzene	*96*		*70 - 130*

Lab Sample ID: 11K2458-MSD1
Matrix: Water
Analysis Batch: U019811

Client Sample ID: BR-04
Prep Type: Total
Prep Batch: 11K2458_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		20.0	19.3		ug/L		97	70 - 142	4	17
trans-1,2-Dichloroethene	ND		20.0	19.2		ug/L		96	66 - 143	11	16
cis-1,2-Dichloroethene	5.02		20.0	24.9		ug/L		99	68 - 138	4	17
Tetrachloroethene	ND		20.0	19.8		ug/L		99	72 - 145	7	16
Trichloroethene	4.29		20.0	23.1		ug/L		94	73 - 144	4	17
Vinyl chloride	ND		20.0	12.7		ug/L		64	56 - 129	7	17

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1,2-Dichloroethane-d4	*99*		*70 - 130*
Dibromofluoromethane	*100*		*70 - 130*
Toluene-d8	*100*		*70 - 130*
4-Bromofluorobenzene	*93*		*70 - 130*

GCMS Volatiles

Analysis Batch: U019811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K2458-BLK1	Method Blank	Total	Water	SW846 8260B	11K2458_P
11K2458-BS1	Lab Control Sample	Total	Water	SW846 8260B	11K2458_P
11K2458-MS1	BR-04	Total	Water	SW846 8260B	11K2458_P
11K2458-MSD1	BR-04	Total	Water	SW846 8260B	11K2458_P
NUK0699-01	OB-04	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-02	OB-06	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-03	BR-04	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-04	BR-10	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-05	TW-04	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-06	BR-03	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-07	TW-09	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-08	BR-02	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-09	TW-20	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-10	OB-08	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-11	QAFB01	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-12	BR-15	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-13	QARB-01	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-14	QATB01	Total	Water	SW846 8260B	11K2458_P
NUK0699-15	BR-01	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-16	TW-17	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-17	W-5	Total	Ground Water	SW846 8260B	11K2458_P
NUK0699-18	W-5 Dup	Total	Ground Water	SW846 8260B	11K2458_P

Analysis Batch: U019883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K1382-BLK1	Method Blank	Total	Water	SW846 8260B	11K1382_P
11K1382-BS1	Lab Control Sample	Total	Water	SW846 8260B	11K1382_P
11K1382-MS1	BR-10	Total	Water	SW846 8260B	11K1382_P
11K1382-MSD1	BR-10	Total	Water	SW846 8260B	11K1382_P
NUK0699-04 - RE1	BR-10	Total	Ground Water	SW846 8260B	11K1382_P
NUK0699-08 - RE1	BR-02	Total	Ground Water	SW846 8260B	11K1382_P
NUK0699-16 - RE1	TW-17	Total	Ground Water	SW846 8260B	11K1382_P
NUK0699-17 - RE1	W-5	Total	Ground Water	SW846 8260B	11K1382_P
NUK0699-18 - RE1	W-5 Dup	Total	Ground Water	SW846 8260B	11K1382_P

Prep Batch: 11K1382_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K1382-BLK1	Method Blank	Total	Water	EPA 5030B	
11K1382-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11K1382-MS1	BR-10	Total	Water	EPA 5030B	
11K1382-MSD1	BR-10	Total	Water	EPA 5030B	
NUK0699-04 - RE1	BR-10	Total	Ground Water	EPA 5030B	
NUK0699-08 - RE1	BR-02	Total	Ground Water	EPA 5030B	
NUK0699-16 - RE1	TW-17	Total	Ground Water	EPA 5030B	
NUK0699-17 - RE1	W-5	Total	Ground Water	EPA 5030B	
NUK0699-18 - RE1	W-5 Dup	Total	Ground Water	EPA 5030B	

Prep Batch: 11K2458_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K2458-BLK1	Method Blank	Total	Water	EPA 5030B	
11K2458-BS1	Lab Control Sample	Total	Water	EPA 5030B	
11K2458-MS1	BR-04	Total	Water	EPA 5030B	

GCMS Volatiles (Continued)

Prep Batch: 11K2458_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11K2458-MSD1	BR-04	Total	Water	EPA 5030B	
NUK0699-01	OB-04	Total	Ground Water	EPA 5030B	
NUK0699-02	OB-06	Total	Ground Water	EPA 5030B	
NUK0699-03	BR-04	Total	Ground Water	EPA 5030B	
NUK0699-04	BR-10	Total	Ground Water	EPA 5030B	
NUK0699-05	TW-04	Total	Ground Water	EPA 5030B	
NUK0699-06	BR-03	Total	Ground Water	EPA 5030B	
NUK0699-07	TW-09	Total	Ground Water	EPA 5030B	
NUK0699-08	BR-02	Total	Ground Water	EPA 5030B	
NUK0699-09	TW-20	Total	Ground Water	EPA 5030B	
NUK0699-10	OB-08	Total	Ground Water	EPA 5030B	
NUK0699-11	QAFB01	Total	Ground Water	EPA 5030B	
NUK0699-12	BR-15	Total	Ground Water	EPA 5030B	
NUK0699-13	QARB-01	Total	Ground Water	EPA 5030B	
NUK0699-14	QATB01	Total	Water	EPA 5030B	
NUK0699-15	BR-01	Total	Ground Water	EPA 5030B	
NUK0699-16	TW-17	Total	Ground Water	EPA 5030B	
NUK0699-17	W-5	Total	Ground Water	EPA 5030B	
NUK0699-18	W-5 Dup	Total	Ground Water	EPA 5030B	

Client Sample ID: OB-04

Lab Sample ID: NUK0699-01

Date Collected: 11/01/11 11:25

Matrix: Ground Water

Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 16:22	JJR	TAL NSH

Client Sample ID: OB-06

Lab Sample ID: NUK0699-02

Date Collected: 11/01/11 12:44

Matrix: Ground Water

Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 16:47	JJR	TAL NSH

Client Sample ID: BR-04

Lab Sample ID: NUK0699-03

Date Collected: 11/01/11 14:20

Matrix: Ground Water

Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 17:13	JJR	TAL NSH

Client Sample ID: BR-10

Lab Sample ID: NUK0699-04

Date Collected: 11/01/11 15:16

Matrix: Ground Water

Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 17:39	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11K1382_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	10.0	U019883	11/09/11 05:11	JJR	TAL NSH

Client Sample ID: TW-04

Lab Sample ID: NUK0699-05

Date Collected: 11/01/11 16:59

Matrix: Ground Water

Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 18:04	JJR	TAL NSH

Client Sample ID: BR-03

Lab Sample ID: NUK0699-06

Date Collected: 11/02/11 09:40

Matrix: Ground Water

Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 18:30	JJR	TAL NSH

Lab Chronicle

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: TW-09
Date Collected: 11/02/11 10:50
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-07
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 18:56	JJR	TAL NSH

Client Sample ID: BR-02
Date Collected: 11/02/11 12:08
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-08
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 19:21	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11K1382_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	20.0	U019883	11/09/11 05:36	JJR	TAL NSH

Client Sample ID: TW-20
Date Collected: 11/02/11 13:46
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-09
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 19:47	JJR	TAL NSH

Client Sample ID: OB-08
Date Collected: 11/02/11 15:02
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-10
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 20:13	JJR	TAL NSH

Client Sample ID: QAFB01
Date Collected: 11/02/11 15:30
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-11
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 20:38	JJR	TAL NSH

Client Sample ID: BR-15
Date Collected: 11/02/11 18:52
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-12
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 21:04	JJR	TAL NSH

Lab Chronicle

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: QARB-01

Lab Sample ID: NUK0699-13

Date Collected: 11/02/11 19:05
Matrix: Ground Water
Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 21:30	JJR	TAL NSH

Client Sample ID: QATB01

Lab Sample ID: NUK0699-14

Date Collected: 11/02/11 00:01
Matrix: Water
Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 21:56	JJR	TAL NSH

Client Sample ID: BR-01

Lab Sample ID: NUK0699-15

Date Collected: 11/03/11 09:15
Matrix: Ground Water
Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 22:21	JJR	TAL NSH

Client Sample ID: TW-17

Lab Sample ID: NUK0699-16

Date Collected: 11/03/11 10:24
Matrix: Ground Water
Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 22:47	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11K1382_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	5.00	U019883	11/09/11 03:54	JJR	TAL NSH

Client Sample ID: W-5

Lab Sample ID: NUK0699-17

Date Collected: 11/03/11 11:58
Matrix: Ground Water
Date Received: 11/04/11 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 23:13	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11K1382_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	5.00	U019883	11/09/11 04:20	JJR	TAL NSH

Lab Chronicle

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Client Sample ID: W-5 Dup
Date Collected: 11/03/11 11:58
Date Received: 11/04/11 08:00

Lab Sample ID: NUK0699-18
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5030B		1.00	11K2458_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U019811	11/07/11 23:38	JJR	TAL NSH
Total	Prep	EPA 5030B	RE1	1.00	11K1382_P	11/04/11 17:40	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	5.00	U019883	11/09/11 04:45	JJR	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Method Summary

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Method	Method Description	Protocol	Laboratory
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Certification Summary

Client: AMEC E&I, Inc. (4997)
Project/Site: 3031052006-16

TestAmerica Job ID: NUK0699

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville		ACIL		393
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	A2LA	WY UST		453.07
TestAmerica Nashville	AIHA - LAP	IHLAP		100790
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska	Alaska UST	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas	State Program	6	88-0737
TestAmerica Nashville	CALA	CALA		3744
TestAmerica Nashville	California	NELAC	9	1168CA
TestAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	Kentucky UST	4	19
TestAmerica Nashville	Kentucky	State Program	4	90038
TestAmerica Nashville	Louisiana	NELAC	6	30613
TestAmerica Nashville	Louisiana	NELAC	6	LA100011
TestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
TestAmerica Nashville	Minnesota	NELAC	5	047-999-345
TestAmerica Nashville	Mississippi	State Program	4	N/A
TestAmerica Nashville	Montana	MT DEQ UST	8	NA
TestAmerica Nashville	New Hampshire	NELAC	1	2963
TestAmerica Nashville	New Jersey	NELAC	2	TN965
TestAmerica Nashville	New York	NELAC	2	11342
TestAmerica Nashville	North Carolina	North Carolina DENR	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio	OVAP	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAC	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAC	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	Tennessee	State Program	4	2008
TestAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
TestAmerica Nashville	USDA	USDA		S-48469
TestAmerica Nashville	Utah	NELAC	8	TAN
TestAmerica Nashville	Virginia	NELAC Secondary AB	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia	West Virginia DEP	3	219

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER REC

NUK0699

Cooler Received/Opened On 11/4/2011 @ 0800

1. Tracking # 6056 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 14740456

2. Temperature of rep. sample or temp blank when opened: 4.2 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front/back

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) J.G.

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) P.H.

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) P.H.

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) P.H.

I certify that I attached a label with the unique LIMS number to each container (intial) P.H.

21. Were there Non-Conformance issues at login? YES...NO Was a PIPE generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

1 2 3 4 5 6 7 8 9 10 11

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Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
',"Reg District (CA)")

NUK0699
11/18/11 23:59

Page 1 of 3

Client: AMEC E&I, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Courtney Wolf
SamplerSignature: [signature]

TA Account #: 63036 PO #: 201100854
Invoice to: AMEC E&I (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

	Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B Extended List VOA	8260B (TCE, cis-1,2-DCE trans-1,2-DCE, 1,1-DCE and VC only)	RUSH TAT (Pre Schedule)*
1	OB-04	11/1/11	1125	3	X		N			X						X						X		
2	OB-06	11/1/11	1244	3	X		N			X						X						X		
3	BR-04	11/1/11	1420	3	X		N			X						X						X		
	BR-04 MS	11/1/11	1420	3	X		N			X						X						X		
	BR-04 MSD	11/1/11	1420	3	X		N			X						X						X		
4	BR-10	11/1/11	1516	3	X		N			X						X						X		
5	TW-04	11/1/11	1659	3	X		N			X						X						X		
6	BR-03	11/2/11	0940	3	X		N			X						X						X		
7	TW-09	11/2/11	1050	3	X		N			X						X						X		
8	BR-02	11/2/11	1208	3	X		N			X						X						X		

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.

* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.

There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: BO # 27128

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
[signature]	11/3/11	1300						

Shipped Via: FedEx

Shipped Via:

Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact? Y N / VOCs Free of Headspace? Y N	QC Deliverables (Please Circle One): Level 2 Level 3 Level 4 Site Specific (If site specific, please pre-schedule w/ TestAmerica Project Manager or attach specific instructions)	Date Due of Report:
Paul R M... / T/A Nash.	11/4/11	08:00	4.2°C			

NUK0699
11/18/11 23:59

TestAmerica
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Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
","Reg District (CA)")

Client: AMEC E&I, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Courtney Wells
SamplerSignature:

TA Account #: 63036 PO #: 201100854
Invoice to: AMEC E&I (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-I6
Reg District (CA):
Site Address:
City,State,Zip: New York

	Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B Extended List VOA	8260B (TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE and VC only)	RUSH TAT (Pre Schedule)*
9	TW-20	11/2/11	1346	3	X		N			X						X						X	X	
10	OB-08	11/2/11	1502	3	X		N			X						X						X	X	
11	QAFB01	11/2/11	1530	3	X		N			X						X						X	X	
12	BR-15	11/2/11	1852	3	X		N			X						X						X	X	
13	QARB-01	11/2/11	1905	3	X		N			X						X						X	X	
14	QATB01	—	—	2	X		N			X						X						X	X	
15	BR-01	11/3/11	0915	3	X		N			X						X						X	X	
16	TW-17	11/3/11	1024	3	X		N			X						X						X	X	
17	W-5	11/3/11	1158	3	X		N			X						X						X	X	
18	W-5 Dup	11/3/11	1158	3	X		N			X						X						X	X	

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.
There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: BO # 27128

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
	11/3/11	1300						

Shipped Via: Fedex
Received for TestAmerica by: Date: 11/4/11 Time: 09:00
Shipped Via:
Temperature Upon Receipt: 4.2°C
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
QC Deliverables (Please Circle One): Level 2 Level 3 Level 4 Site Specific
(If site specific, please pre-schedule w/ TestAmerica Project Manager or attach specific instructions)
Date Due of Report:

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',"Reg District (CA)")

NUK0699
11/18/11 23:59

Page 3 of 3

Client: AMEC E&I, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Courtney Wolf
SamplerSignature: Courtney Wolf

TA Account #: 63036 PO #: 201100854
Invoice to: AMEC E&I (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: ~~8260B Extended List-VOA~~ VOCs by 624	RUSH TAT (Pre Schedule)*
IDW-1	11/3/11	1215	3	X		N			X						X							

19

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
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There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: BO # 27128

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
Courtney Wolf	11/3/11	1300						

Shipped Via:
Shipped Via:

Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact? Y N	QC Deliverables (Please Circle One):	Date Due of Report:
Paul R. [illegible] / T/A Nash.	11/4/11	08:00	4.2°C	VOCs Free of Headspace? Y N	Level 2 Level 3 Level 4 Site Specific (If site specific, please pre-schedule w/ TestAmerica Project Manager or attach specific instructions)	

APPENDIX E

CHAIN-OF-CUSTODY FORMS

TestAmerica
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Nashville Division
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Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
","Reg District (CA)")

NUE1019
05/20/11 23:59

Client: MACTEC Engineering & Consulting, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Brandon Shaw
SamplerSignature:

TA Account #: 63036 PO #: ~~801013378~~ 201100854
Invoice to: MACTEC Engineering & Consulting (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-~~16~~ 18
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B ~~Extended~~ List VOA Reduced	Full 8260B VOC List	VOC-624	RUSH TAT (Pre Schedule)*
QATB01	5-3-11	0800	2	X					X											X		X		
BR-01	5-4-11	1240	3	X					X						X						X			
QAFB01	5-3-11	0750	3	X					X											X		X		
BR-15	5-4-11	1500	3	X					X						X						X			
W-5	5-4-11	1730	3	X					X						X						X			
W-5 (DUP)	5-4-11	1730	3	X					X						X						X			
QARB01	5-4-11	1755	3	X					X											X		X		
MW-17	5-5-11	0800	3	X					X						X						X			
IDW-1	5-5-11	1000	3	X					X							X							X	

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.
There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: *BO #* 24432
Reduced List: DCE, TCE, PCE, cis and trans 1,2DCE, Vinyl Chloride

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
	5-5-11	1345						

Shipped Via:	Shipped Via:	QC Deliverables (Please Circle One): Level 2 Level 3 Level 4 Site Specific	Date Due of Report:
Received for TestAmerica by:	Date: Time:	Temperature Upon Receipt: Sample Containers Intact? Y N; VOCs Free of Headspace? Y N	If site specific, please preschedule w TestAmerica Project Manager or attach specific instructions

TestAmerica
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2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404

NUE1019
05/20/11 23:59

',"Reg District (CA)")

Client: MACTEC Engineering & Consulting, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Brandon Shaw
SamplerSignature:

TA Account #: 63036 PO #: ~~201013379~~ 201100854
Invoice to: MACTEC Engineering & Consulting (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B ~~Extended~~ List VOA Reduced (*) see highlighted note below	RUSH TAT (Pre Schedule)*
BB-06	5-3-11	1150	3	X					X						X						X	
BR-04	↓	1320	3	X					X						X						X	
BR-04(MS)	↓	1320	3	X					X						X						X	
BR-04(MSD)	↓	1320	3	X					X						X						X	
BR-10	↓	1420	3	X					X						X						X	
TW-04	↓	1520	3	X					X						X						X	
BR-03	↓	1635	3	X					X						X						X	
TW-09	↓	1755	3	X					X						X						X	
BR-02	5-4-11	0920	3	X					X						X						X	
TW-20	5-4-11	1030	3	X					X						X						X	

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
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There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: *BO # 24432*
Reduced List: DCE, TCE, PCE, cis and trans 1,2DCE, Vinyl Chloride

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
[illegible]	[illegible]	[illegible]						

Shipped Via: [illegible] Shipped Via:

QC Deliverables (Please Circle One): Level 2 Level 3 Level 4 Site Specific
(If site specific, please pre-schedule w/ TestAmerica Project Manager or attach specific instructions)

Received for TestAmerica by: Date: Time: Temperature Upon Receipt: Sample Containers Intact? Y N VOCs Free of Headspace? Y N Date Due of Report:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404

NUE1019
05/20/11 23:59

07/21/2011

","Reg District (CA)")

Client: MACTEC Engineering & Consulting, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Brandon Shaw
SamplerSignature:

TA Account #: 63036 PO #: ~~201013379~~ 20110085 4
Invoice to: MACTEC Engineering & Consulting (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B ~~Extended~~ List VOA	reduced (*) see highlighted note below	RUSH TAT (Pre Schedule)*
EB-04	5-3-11	1025	3	X					X						X						X*		
DUP-08	5-4-11	1135	3	X					X						X						X		
TB																							

(*) see highlighted note below

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
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There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: *BO # 24432*
Reduced List: DCE, TCE, PCE, cis and trans 1,2DCE, Vinyl Chloride

please contact J. Deatherage for further instructions

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
Shipped Via:			Shipped Via:			QC Deliverables (Please Circle Below): Level 2 Level 3 Level 4 Site Specific		
Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact: Y N		If site specific please pre-schedule w/ TestAmerica Project Manager or attach specific instructions.	Date Due of Report:	
				VOC - Free of Headspace: Y N				

Page 21 of 21

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
","Reg District (CA)")

NUE1019
05/20/11 23:59

Client: MACTEC Engineering & Consulting, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Brandon Shaw
SamplerSignature:

TA Account #: 63036 PO #: ~~801013378~~ 201100854
Invoice to: MACTEC Engineering & Consulting (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-~~16~~ 18
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Lab water/future water	(specify) Other	Analyze for: 8260B ~~Extended~~ List VOA Reduced	Full 8260B VOC List	VOC-624	RUSH TAT (Pre Schedule)*
QATB01	5-3-11	0800	2	X					X												X	X	X		
BR-01	5-4-11	1240	3	X					X						X						X	X			
QAFB01	5-3-11	0750	3	X					X												X		X		
BR-15	5-4-11	1500	3	X					X						X						X	X			
W-5	5-4-11	1730	3	X					X						X						X	X			
W-5 (Dup)	5-4-11	1730	3	X					X						X						X	X			
QARB01	5-4-11	1755	3	X					X												X		X		
MW-17	5-5-11	0800	3	X					X						X						X	X			
MW-1	5-5-11	1000	3	X					X							X								X	

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.
There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: *BO #* 24432
Reduced List: DCE, TCE, PCE, cis and trans 1,2DCE, Vinyl Chloride

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
	5-5-11	1345						

Shipped Via:	Shipped Via:	QC Deliverables (Please Circle One): Level 2 Level 3 Level 4 Site Specific	Date Due of Report:
Received for TestAmerica by:	Date: Time:	Temperature Upon Receipt: Sample Containers Intact? Y N; VOCs Free of Headspace? Y N	If site specific, please preschedule w TestAmerica Project Manager or attach specific instructions

07/21/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
","Reg District (CA)")

NUE1019
05/20/11 23:59

Client: MACTEC Engineering & Consulting, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Brandon Shaw
SamplerSignature:

TA Account #: 63036 PO #: ~~201013379~~ 20110085?
Invoice to: MACTEC Engineering & Consulting (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B Extended List VOA (Reduced)	RUSH TAT (Pre Schedule)
BR-06	5-3-11	1150	3	X					X						X						X	
BR-04		1320	3	X					X						X						X	
BR-04(MS)		1320	3	X					X						X						X	
BR-04(MSD)		1320	3	X					X						X						X	
BR-10		1420	3	X					X						X						X	
TW-04		1520	3	X					X						X						X	
BR-03		1635	3	X					X						X						X	
TW-09		1755	3	X					X						X						X	
BR-02	5-4-11	0920	3	X					X						X						X	
TW-20	5-4-11	1030	3	X					X						X						X	

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.

* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.

There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: *BO # 24432*
Reduced List: DCE, TCE, PCE, cis and trans 1,2DCE, Vinyl Chloride

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
Shipped Via:			Shipped Via:			QC Deliverables (Please Circle One):		
Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact? Y N		Level 2 Level 3 Level 4 Spec Specific		Date Due of Report:
				VOC's Free of Headspace? Y N		If Site specific please preschedule w TestAmerica Project Manager or attach specific instructions		

07/21/2011

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THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404

NUE1019
05/20/11 23:59

07/21/2011

Client: MACTEC Engineering & Consulting, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Brandon Shaw
SamplerSignature:

TA Account #: 63036 PO #: ~~201013379~~ 20110085 4
Invoice to: MACTEC Engineering & Consulting (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B ~~Extended~~ List VOA	reduced (*) see highlighted note below	RUSH TAT (Pre Schedule)*
EB-04	5-3-11	1025	3	X					X						X						X*		
DUP-08	5-4-11	1135	3	X					X						X						X		

BA

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.
There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: *BO # 24432*
Reduced List: DCE, TCE, PCE, cis and trans 1,2DCE, Vinyl Chloride

please contact J.D. Deatherage for further instructions

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
Shipped Via:			Shipped Via:			QC Deliverables (Please Circle Below):		
Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact: Y N		Level 2 Level 3 Level 4 Site Specific	Date Due of Report:	
				COC - Out of Headspace: Y N		If site specific please pre-schedule w/ TestAmerica Project Manager or attach specific instructions		

TestAmerica
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Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
',"Reg District (CA)")

NUK0699
11/18/11 23:59

11/15/2011

Page 1 of 3

Client: AMEC E&I, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print): Courtney Wolf
SamplerSignature: [signature]

TA Account #: 63036 PO #: 201100854
Invoice to: AMEC E&I (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

	Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: ~~8260B Extended List VOA~~	8260B (TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE and VC only)	RUSH TAT (Pre Schedule)*
1	OB-04	11/1/11	1125	3	X		N			X						X							X	
2	OB-06	11/1/11	1244	3	X		N			X						X							X	
3	BR-04	11/1/11	1420	3	X		N			X						X							X	
	BR-04 MS	11/1/11	1420	3	X		N			X						X							X	
	BR-04 MSD	11/1/11	1420	3	X		N			X						X							X	
4	BR-10	11/1/11	1516	3	X		N			X						X							X	
5	TW-04	11/1/11	1659	3	X		N			X						X							X	
6	BR-03	11/2/11	0940	3	X		N			X						X							X	
7	TW-09	11/2/11	1050	3	X		N			X						X							X	
8	BR-02	11/2/11	1208	3	X		N			X						X							X	

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
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There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: BO # 27128

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
Courtney Wolf [signature]	11/3/11	1300						

Shipped Via: FedEx
Shipped Via:

Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact? Y N / VOCs Free of Headspace? Y N
Paul R[illegible] / T/A Nash.	11/4/11	08:00	4.2°C	

QC Deliverables (Please Circle One): Level 2 Level 3 Level 4 Site Specific
(If site specific, please pre-schedule w/ TestAmerica Project Manager or attach specific instructions)

Date Due of Report:

NUK0699
11/18/11 23:59

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
',"Reg District (CA)")

11/15/2011

Client: AMEC E&I, Inc. (4997)
Address: 9725 Cogdill Rd.
City, State, Zip: Knoxville TN 37932
Client Invoice Contact: VendorElectronicInvoices
Client Project Mgr: Joe Deatherage
Client Telephone#: (865) 588-8544 Fax: (865) 588-8026
Sampler Name (Print) Courtney Wells
SamplerSignature: [signature]

TA Account #: 63036 PO #: 201100854
Invoice to: AMEC E&I (80116)
Report to: Joe Deatherage
Project Name: Former Taylor Instruments
Facility ID: 3031052006-16
Reg District (CA):
Site Address:
City,State,Zip: New York

	Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	8260B Extended List VOA	8260B (TCE, cis-12-DCE, Trans 12-DCE, 11-DCE and VC only)	RUSH TAT (Pre Schedule)*
9	TW-20	11/2/11	1346	3	X		N			X						X							X	
10	03-08	11/2/11	1502	3	X		N			X						X							X	
11	QAFB01	11/2/11	1530	3	X		N			X						X							X	
12	BR-15	11/2/11	1852	3	X		N			X						X							X	
13	QARB-01	11/2/11	1905	3	X		N			X						X							X	
14	QATB01	—	—	2	X		N			X						X							X	
15	BR-01	11/3/11	0915	3	X		N			X						X							X	
16	TW-17	11/3/11	1024	3	X		N			X						X							X	
17	W-5	11/3/11	1158	3	X		N			X						X							X	
18	W-5 Dup	11/3/11	1158	3	X		N			X						X							X	

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
* Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments;additional charges may be assessed.
There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: BO # 27128

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
[signature]	11/3/11	1300						

Shipped Via: Fedex
Shipped Via:

QC Deliverables (Please Circle One) : Level 2 Level 3 Level 4 Site Specific
(If site specific, please pre-schedule w/ TestAmerica Project Manager or attach specific instructions)

Date Due of Report:

Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact? Y N	VOCs Free of Headspace? Y N
[signature] TA Nash.	11/4/11	08:00	4.2°C		

1 2 3 4 5 6 7 8 9 10 11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton Drive * Nashville TN 37204
Phone: (800) 765-0980 / (615) 726-0177 Fax:(615) 726-3404
',"Reg District (CA)")

NUK0699
11/18/11 23:59

11/15/2011

Client:	AMEC E&I, Inc. (4997)	TA Account #:	63036 PO #: 201100854
Address:	9725 Cogdill Rd.	Invoice to:	AMEC E&I (80116)
City, State, Zip:	Knoxville TN 37932	Report to:	Joe Deatherage
Client Invoice Contact:	VendorElectronicInvoices	Project Name:	Former Taylor Instruments
Client Project Mgr:	Joe Deatherage	Facility ID:	3031052006-16
Client Telephone#:	(865) 588-8544 Fax: (865) 588-8026	Reg District (CA):	
Sampler Name (Print)	Courtney Wolf	Site Address:	
SamplerSignature:	[signature]	City,State,Zip:	New York

Sample ID	Date Sampled	Time Sampled	# Containers Shipped	Grab	Composite	Field Filtered	Preservative: Methanol	Sodium Bisulfate	(Blue Label) HCL	(Orange Label) NaOH	(Yellow Label) Plastic H2SO4	(Yellow Label) Glass H2SO4	(Red Label) HNO3	(Black Label) None	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	(specify) Other	Analyze for: 8260B Extended List VOA	VOC by 624	RUSH TAT (Pre Schedule)*
19 IDW-1	11/3/11	1215	3	X		N			X						X								

COMMENTS: All turn around times are calculated from the time of receipt at TestAmerica.
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There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES/SPECIAL INSTRUCTIONS: BO # 27128

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
[signature]	11/3/11	1300						

Shipped Via: | Shipped Via:

Received for TestAmerica by:	Date:	Time:	Temperature Upon Receipt:	Sample Containers Intact? Y N / VOCs Free of Headspace? Y N	QC Deliverables (Please Circle One): Level 2 Level 3 Level 4 Site Specific (If site specific, please pre-schedule w/ TestAmerica Project Manager or attach specific instructions)	Date Due of Report:
Paul R [illegible] /T/A Nash.	11/4/11	08:00	4.2 °C			

APPENDIX F

FIELD DATA RECORDS

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 3, 2011

SITE ID: OB-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0900 END 1030

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND)	— FT	PROTECTIVE CASING / WELL DIFFERENCE	0.3 FT				
INITIAL DEPTH TO WATER	3.98 FT	WELL DEPTH	16.45 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	8.83 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	— PPM	WELL INTEGRITY:	YES / NO / N/A
DRAWDOWN	4.8 FT	DRAWDOWN VOLUME	0.8 GAL	PRODUCT THICKNESS	< 0.1 FT	CAP	✓ / — / —
						CASING	✓ / — / —
						LOCKED	✓ / — / —
						COLLAR	✓ / — / —

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.125 L/MIN	0902	1020	~3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOR) ~~Comments~~
0902	<0.5	Pump on @ OB-04		-	-	-	-	4.10
0905	—	6.05	1.005	34.5	1.80	10.42	-87.5	5.03
0910	~4	5.99	0.993	52.2	0.54	10.41	-93.0	6.32
0915	~4.5	6.00	1.027	44.3	0.42	10.37	-94.7	7.67
0920	~5	6.02	1.136	53.8	0.35	10.33	-93.6	7.85
0925	~5.5	6.06	1.299	76.2	0.32	10.46	-94.0	8.17
0930	~6	6.10	1.359	64.0	0.33	10.35	-91.9	8.60
0935	~6.5	6.20	1.404	66.4	0.50	10.31	-83.0	8.90
0940	~7	6.18	1.482	54.2	0.74	10.33	-74.4	8.94
0945	~7.5	6.17	1.579	53.0	0.59	10.29	-82.6	8.79
0950	~8	6.24	1.706	42.5	0.38	10.38	-90.7	8.80
0955	~8.5	6.28	1.779	40.0	0.34	10.38	-94.2	8.84
1000	~9	6.31	1.802	38.0	0.32	10.38	-96.6	8.87
1005	~9.5	6.31	1.847	28.6	0.37	10.30	-95.3	8.85

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER __ None
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER __ None	

PURGE OBSERVATIONS

purge water: cloudy, strong 'anaerobic-like' odor, slightly black

purge rate: 400 ml/min → 125 ml/min

SIGNATURE: _____

NOTES

- Tubing intake depth @ ~12' bgs
- containerized purge water,
- Based on May 2010 gw sampling event, began with same purge rate and DTW dropped, so increased flow rate until OB-04 began to 'produce' 'formation' water and DTW began to stabilize; then decreased flow rate;

collected VOC sample @ 1025;

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 3, 2011

SITE ID: OB-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0900 END 1030

JOB NUMBER: 3031052006 -18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [x] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER ____

PROTECTIVE CASING STICKUP (FROM GROUND): 0.0 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.3 FT

INITIAL DEPTH TO WATER: 3.98 FT

WELL DEPTH: 16.95 FT

PID AMBIENT AIR: – PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 8.83 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: – PPM

DRAWDOWN: 4.8 FT

DRAWDOWN VOLUME: 0.8 GAL

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PRODUCT THICKNESS: <0.1 FT

WELL INTEGRITY	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

PURGE RATE: 125 L/MIN

BEGIN PURGING: 0902

END PURGING: 1027

TOTAL VOL. PURGED: ~3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOR) ~~Comments~~
–	~9.5	(~~Pump on @~~ BAS) Continued from page 1 of 3				–	–	8.85
1010	~10	6.31	1.876	28.2	0.38	10.35	-89.1	8.86
1015	~10.5	6.32	1.890	27.0	0.42	10.35	-89.0	8.85
1020	~11.	6.32	1.911	26.3	0.40	10.36	-88.7	8.84
1025	collected	gw sample @		OB-04	-	–	–	–

BAS

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [x] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER ____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] HIGH DENSITY POLYETHYLENE
- [ ] OTHER ____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] OTHER __ None

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [x] OTHER __ None

PURGE OBSERVATIONS

Continued from page 1 of 2

NOTES

see page 1 of ~~2~~ 3

SIGNATURE: [signature]

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 3, 2021

SITE ID: OB-06

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1040 END 1200

JOB NUMBER: 3031052006-18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): ~0. FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.4 FT

INITIAL DEPTH TO WATER: 3.99 FT

WELL DEPTH: 16.45 FT

PID AMBIENT AIR: - PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 6.19 FT

SCREEN LENGTH: 10 FT

PID WELL MOUTH: - PPM

DRAWDOWN: 2.2 FT

DRAWDOWN VOLUME: 0.35 GAL

PRODUCT THICKNESS: ~0.4 (0) FT

WELL INTEGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.150 L/MIN

BEGIN PURGING: 1046

END PURGING: 1150

TOTAL VOL. PURGED: ~2.3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOR). Comments
1046	<0.1	Pump on @ OB-06		-	-	-	-	4.59
1051	~3 (*)	6.82	0.891	>1000	1.95	10.31	-91.8	6.10
1056	~3.5	6.90	0.690	>1000	3.22	10.30	-102.4	6.36
1101	~4	7.09	0.573	>1000	7.96	10.26	-131.8	6.47
1106	~4.5	7.13	0.570	>1000	6.32	10.20	-122.4	6.39
1111	~5	7.14	0.568	>1000	5.38	10.17	-103.2	6.30
1116	~5.5	7.15	0.569	>1000	5.10	10.17	-90.9	6.21
1121	~6	7.10	0.570	>1000	4.65	10.18	-84.6	6.17
1126	~6.5	7.13	0.573	>1000	4.43	10.22	-85.6	6.22
1131	~7	7.14	0.579	>1000	4.16	10.11	-79.4	6.23
1136	~7.5	7.09	0.583	>1000	4.06	10.03	-74.5	6.20
1141	~8.	7.08	0.584	>1000	3.81	9.97	-70.5	6.23
1146	~8.5	7.07	0.585	>1000	3.70	9.90	-68.2	6.20
1150	Collected gw sample @ OB-06					-	-	-

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER __ None

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER __ None

PURGE OBSERVATIONS

purge water: DK grey to white, strong odor.

purge rate: 400 ml/min → 150 ml/min

SIGNATURE

NOTES

@ purged off 'product' prior to sampling activities,

- deconned water level @ 1158

- containerized purge water,

- tubing intake depth @ ~12' (BTOR)

collected WW sample;

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 5, 2011

SITE ID: DB-06

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0820 END 0950

JOB NUMBER: 3031052006 -18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): - FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.4 FT

INITIAL DEPTH TO WATER: 5.17 FT

WELL DEPTH: 16.45 FT

PID AMBIENT AIR: - PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 6.66 FT

SCREEN LENGTH: 10 FT

PID WELL MOUTH: - PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

DRAWDOWN: FT

DRAWDOWN VOLUME: GAL

PRODUCT THICKNESS: UNK FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.200 L/MIN

BEGIN PURGING: 0821

END PURGING: 0939

TOTAL VOL. PURGED: GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOR) Comments
0821	~1	Pump on @ DB-06		-	-	-	-	5.51
0825	~2	6.55	1.087	71000	2.39	11.08	-175.5	5.87
0830	~3	6.59	1.044	71600	1.25	10.88	-181.9	6.41
0840	-	6.60	0.704	71000	0.71	11.29	-179.6	6.60
0910	-	6.71	0.639	447	0.51	10.86	-169.1	6.63
0920	-	6.65	0.640	298	0.47	10.52	-155.3	6.65
0932	-	6.63	0.642	252	0.43	10.45	-152.5	6.66
0935		6.63	0.642	232	0.42	10.42	-149.2	6.66
0940	Collected WC gw sample @				DB-06			

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER __ None

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER __ None

PURGE OBSERVATIONS

purge water : cloudy, white/grey

purge rate: 200ml/min

NOTES

- tubing intake depth @ ~12' (BTOR)
- Continuous purge rate,
- Collected WC gw sample @ DB-06

vial #s: 415, 412, 409

SIGNATURE:

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 1, 2011

SITE ID: OB-08

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1045 END 1145

JOB NUMBER: 3031052006-18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND)	~ FT	PROTECTIVE CASING / WELL DIFFERENCE	0.35 FT		
INITIAL DEPTH TO WATER	5.26 FT	WELL DEPTH	25.3 FT	PID AMBIENT AIR	— PPM
WELL DIAMETER	2 IN				
FINAL DEPTH TO WATER	8.00 FT	SCREEN LENGTH	10 FT	PID WELL MOUTH	— PPM
DRAWDOWN	~2-7 FT	DRAWDOWN VOLUME	~0.4 GAL	PRODUCT THICKNESS	< 0.1 FT

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.150 L/MIN	1045	1139	~2 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOR) Comments
1045	41	Pump on @	OB-08	-	-	-	-	5.35
1047	~2	7.43	0.916	11.5	0.95	11.92	-147.6	6.95
1052	~3	7.41	0.913	6.79	0.37	11.80	-155.6	7.21
1057	~4	7.40	0.912	7.32	0.31	11.91	-157.9	7.36
1102	~5	7.41	0.912	7.67	0.25	11.95	-159.1	7.70
1107	~6	7.40	0.915	7.15	0.29	12.01	-166.1	7.98
1112	~7	7.40	0.915	6.86	0.26	11.88	-167.4	8.08
1117	~8	7.41	0.916	7.15	0.18	11.87	-172.3	8.03
1122	~9	7.40	0.916	6.90	0.17	11.91	-173.5	8.01
1127	~10	7.39	0.916	6.35	0.15	11.98	-176.5	8.00
1132	~11	7.39	0.918	6.48	0.12	11.93	-174.5	8.00
1135	Collected VOC gw sample @ OB-08							
	BTOR							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER __ None
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER __ None	

PURGE OBSERVATIONS

purge water: cloudy, some black flakes, slight anaerobic-like odor.

purge rate: 150 ml/min

SIGNATURE: _____

NOTES

- tubing intake depth: ~20' (BTOR)
- containerized purge water
- decanted water level @ 1139
- collected VOC gw sample @ OB-08
  vial #s: 470, 465, 458

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 4, 2011

SITE ID: BR-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1150 END 1250

JOB NUMBER: 3031052006 – 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): 2.3 FT

PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER	12.05 FT	WELL DEPTH	38.6 FT	PID AMBIENT AIR	– PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	12.50 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	– PPM		
DRAWDOWN	0.45 FT	DRAWDOWN VOLUME	~0.3 GAL	PRODUCT THICKNESS	< 0.1 FT		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

PURGE RATE: 0.175 L/MIN

BEGIN PURGING: 1151

END PURGING: 1239

TOTAL VOL. PURGED: ~2.3 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOC). Comments
1151	<1	Pump on @ BR-01	–	–	–	–	–	12-20
1154	~2	9.55	0.293	16.4	0.63	10.26	-143.7	12.47
1159	~3.5	9.56	0.292	11.3	0.35	10.24	-150.6	12.55
1204	~4.5	9.58	0.294	6.88	0.34	10.29	-152.4	12.59
1209	~5.5	9.60	0.293	5.39	0.38	10.21	-149.2	12.57
1214	~6.5	9.59	0.293	3.68	0.32	10.24	-147.2	12.56
1219	~7.5	9.59	0.292	3.06	0.28	10.26	-144.8	12.55
1224	~8.5	9.59	0.291	3.48	0.31	10.28	-142.1	12.52
1229	~9.5	9.59	0.291	3.77	0.26	10.31	-138.0	12.51
1234	~10.5	9.60	0.291	3.68	0.28	10.33	-136.6	12.50
1239	~12	9.60	0.290	3.52	0.32	10.37	-136.0	12.50
1240	Collected	VOC	gw sample	@ BR-01	–	–	–	12.50
	BAK							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER __ None
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER __ None	

PURGE OBSERVATIONS

purge water: cloudy, same orange flock.

purge rate: 175 ml/min

SIGNATURE: _____

NOTES

Tubing intake depth @ ~ 17' (BTOR).

- containerized purge water

- deemed water level @ 1245

- collected voc gw sample @ BR-01

- vial #s: 435, 428, 423

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 4, 2011

SITE ID: BR-02

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0815 END 0925

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER _____

INITIAL DEPTH TO WATER	21.21 FT	WELL DEPTH	44.0 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	- FT	PROTECTIVE CASING / WELL DIFFERENCE	0.45 FT
FINAL DEPTH TO WATER	21.57 FT	SCREEN LENGTH	NA FT	PID AMBIENT AIR	- PPM	WELL DIAMETER	4 IN
DRAWDOWN	0.4 FT	DRAWDOWN VOLUME	0.2 GAL	PID WELL MOUTH	- PPM	PRODUCT THICKNESS	<0.1 FT

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.175 L/MIN	0831	0919	~2.3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOC), Comments
0831	<1	Pump on @ BR-02		-	-	-	-	21.29
0836	~1	7.50	0.645	131	3.22	11.59	-37.0	21.39
0841	~2	7.52	0.759	51.3	1.09	11.67	-64.0	21.50
0846	~3	7.57	0.775	19.6	0.38	12.18	-82.9	21.54
0851	~4	7.59	0.776	15.5	0.56	11.84	-84.2	21.57
0856	~5	7.59	0.775	15.0	0.45	11.62	-80.9	21.56
0901	~6	7.60	0.774	14.3	0.49	11.59	-79.4	21.57
0906	~7	7.61	0.773	12.1	0.49	11.59	-77.0	21.57
0911	~8	7.60	0.774	11.3	0.49	11.62	-75.1	21.58
0916	~9	7.61	0.774	11.4	0.57	11.61	-78.0	21.58
0920	collected gw sample @ BR-02				-	-	-	21.57
	BTS							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER __ None
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER __ None	

PURGE OBSERVATIONS

purge water : clearly, orange tock,

purge rate : 175 ml/min;

SIGNATURE: _____

NOTES

tubing intake depth @ ~25' (BTOC)

- containerized purge water.

- decanned water level @ 0925

- collected gw VOC sample @ BR-02
vial #s: 422, 434, 429

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: MAY 3, 2011

SITE ID: BR-03

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1500 END 1645

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): - FT

PROTECTIVE CASING / WELL DIFFERENCE: - FT

INITIAL DEPTH TO WATER	8.48 FT	WELL DEPTH	40.1 FT	PID AMBIENT AIR	- PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	10.15 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	- PPM	WELL INTEGRITY: CAP	YES X NO ___ N/A ___
DRAWDOWN	1.7 FT	DRAWDOWN VOLUME	~1.1 GAL	PRODUCT THICKNESS	<0.1 FT	CASING	X ___ ___
						LOCKED	X ___ ___
						COLLAR	X ___ ___

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.150 L/MIN

BEGIN PURGING: 1532

END PURGING: 1634

TOTAL VOL. PURGED: ~2.3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOC) ~~Comments~~
1532	-	Pump on @	BR-03	-	-	-	-	8.56
1536	~1	8.24	0.960	328	0.44	9.46	-214.4	8.89
1541	~4	8.27	0.956	459	0.17	9.47	-222.1	9.57
1546	~7	8.27	0950	100	0.12	9.48	-223.4	9.97
1551	~10	8.27	0.951	74.0	0.11	9.49	-223.0	10.24
1556	~11	8.28	0951	37.8	0.10	9.50	-223.8	10.50
1601	~12	8.25	0.951	28.6	0.09	9.27	-214.0	10.42
1606	~13	8.23	0.949	23.4	0.13	9.32	-193.1	10.31
1611	~14	8.21	0.949	18.3	0.14	9.36	-179.5	10.25
1616	~15	8.22	0.949	17.0	0.14	9.40	-176.9	10.18
1621	~16	8.22	0.949	16.9	0.16	9.47	-175.3	10.16
1626	~17	8.22	0.949	16.1	0.16	9.41	-175.0	10.15
1631	~18	8.22	0.948	15.7	0.15	9.35	-174.4	10.15
1635	Collected gw sample @ BR-03 -					-	-	-

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER __ None
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER __ None	

PURGE OBSERVATIONS

purge water : cloudy, some orange floc

SIGNATURE: _____

NOTES

- tubing intake depth: 12.5' (BTOC)
- Based on may 2010 gw sample results, increased flow rate to 400 ml/min until DW began creating formation water; then decreased flow rate to ~150ml/min
- Collected VOC sample @ BR-03
  VIAL #s: 418, 409, 406
- disconnected water level @ 1642

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 3, 2011

SITE ID: BR-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1205 END 1325

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [x] TOP OF PROTECTIVE CASING
- [ ] OTHER ______

PROTECTIVE CASING STICKUP (FROM GROUND): Ø FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER: 16.62 FT

WELL DEPTH: 44.2 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 4 IN

FINAL DEPTH TO WATER: 16.64 FT

SCREEN LENGTH: NA. FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

DRAWDOWN: — FT

DRAWDOWN VOLUME: — GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.250 L/MIN

BEGIN PURGING: 1211

END PURGING: 1319

TOTAL VOL. PURGED: ~4 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW: (BTOC). ~~Comments~~
1211	-	Pump on @ BR-04.		—	-	—	—	16.62
1215	~1	7.97	0.046	100	9.43	9.98	-44.8	16.62
1220	~2.5	8.25	0.044	67.0	9.14	9.88	-32.1	16.63
1225	~4	8.34	0.045	54.0	8.91	9.74	-25.6	16.63
1230	~5	8.31	0.044	26.3	8.36	9.93	-10.3	16.63
1235	~6	8.21	0.044	17.0	8.23	10.07	-8.1	16.63
1240.	~7	8.17	0.044	13.7	8.09	10.10	-6.0	16.63
1245	~8	8.32	0.045	10.4	7.82	10.14	-0.1	16.63
1250.	~9	8.38	0.045	9.71	7.80	10.26	0.4	16.63
1255	~10.	8.46	0.046	9.02	7.71	10.29	0.9	16.64
1300.	~11	8.62	0.049	8.59	7.58	10.28	1.6	16.64
1305	~12	8.64	0.050	8.40	7.61	10.22	3.7	16.64
1310.	~13	8.65	0.050	8.53	7.52	10.23	5.3	16.64
1315	~14	8.67	0.050	8.61	7.43	10.25	6.2	16.64

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [x] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER ______

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] HIGH DENSITY POLYETHYLENE
- [ ] OTHER ______

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] OTHER __ None

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [x] OTHER __ None

PURGE OBSERVATIONS

purge water: cloudy

SIGNATURE: [signature]

NOTES

tubing intake depth @ ~21.5' bgs

- containerized purge water @ BR-04;
- collected w/ [illegible] Amo.
- Collected voc samples; @1320
  vial #'s: 468, 457, 443, 455, 467, 466
  444, 469, 456
- deconned water level @ 1325.

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 3, 2011

SITE ID: BR-10

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1330 END 1420

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND)	0 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.3 FT				
INITIAL DEPTH TO WATER	16.35 FT	WELL DEPTH	47.0 FT	PID AMBIENT AIR	– PPM	WELL DIAMETER	6 IN
FINAL DEPTH TO WATER	16.35 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	– PPM	WELL INTEGRITY: CAP	YES ~~NO~~ N/A
						CASING	~~NO~~
DRAWDOWN	– FT	DRAWDOWN VOLUME	– GAL	PRODUCT THICKNESS	<0.1 FT	LOCKED	NO
						COLLAR	YES

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.2 L/MIN	1332	1419	~2.6 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOC). ~~Comments~~
1332	–	Pump on @	BR-10.	–	–	–	–	–
1337	~1	8.11	0.562	55.5	1.37	11.95	-95.0	16.35
1342	~2	8.12	0.563	60.9	0.90	11.90	-95.2	16.35
1347	~3	8.12	0.563	28.9	0.33	11.87	-97.7	16.35
1352	~4	8.09	0.563	26.3	0.18	11.80	-98.3	16.35
1357	~5	8.09	0.563	22.9	0.17	11.74	-91.0	16.35
1402	~6	8.11	0.563	22.0	0.16	11.71	-91.8	16.35
1407	~7	8.09	0.562	21.3	0.17	11.77	-98.0	16.35
1412	~8	8.08	0.563	20.1	0.17	11.84	-91.4	16.35
1417	~9	8.09	0.563	20.3	0.21	11.82	-92.7	16.35
1420	Collected	GW	Sample	@ BR-10				
BAK								

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER __ None
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER __ None	

PURGE OBSERVATIONS

orange-flock in purge water

NOTES

tubing intake depth @ ~20' bgs.

locking piece broken on well cap.

- Collected VOC samples; Vial #s: 454, 442, 445

- decanned water level @ 1427

SIGNATURE: _____

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 4, 2011

SITE ID: BR-15

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1255 END 1510

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): - FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.35 FT

INITIAL DEPTH TO WATER: 17.05 FT

WELL DEPTH: 72.0 FT

PID AMBIENT AIR: - PPM

WELL DIAMETER: 6 IN

FINAL DEPTH TO WATER: 21.06 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: - PPM

WELL INTEGRITY: CAP YES X NO ___ N/A ___; CASING YES X NO ___ N/A ___; LOCKED YES X NO ___ N/A ___; COLLAR YES X NO ___ N/A ___

DRAWDOWN: 4.0 FT

DRAWDOWN VOLUME: ~5.9 GAL

PRODUCT THICKNESS: <0.1 FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.125 L/MIN

BEGIN PURGING: 1255

END PURGING: 1459

TOTAL VOL. PURGED: ~7 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOC) ~~Comments~~
1255	<1	Pump on @ BR-15		-	-	-	-	17.16
1258	~2	10.08	0.171	12.8	0.87	13.14	-109.6	17.32
1303	~4	10.09	0.172	13.8	0.89	13.22	-109.6	17.69
1308	~6	10.07	0.171	7.08	0.84	13.15	-108.6	17.89
1313	~8	10.07	0.172	6.08	0.81	13.17	-107.0	18.21
1318	~10	10.08	0.171	5.57	0.79	13.17	-105.0	18.42
1323	~12	10.06	0.172	5.71	0.81	13.19	-101.8	18.67
1328	~14	10.07	0.171	5.09	0.79	13.22	-99.7	18.93
1333	~16	10.07	0.171	6.32	1.22	13.23	-97.5	19.19
1338	~18	10.06	0.171	7.11	1.39	13.23	-96.3	19.25
1343	~20	10.06	0.171	8.03	2.56	13.25	-90.1	19.37
1348	~22	10.07	0.171	9.99	3.84	13.26	-82.1	19.69
1353	~24	10.07	0.171	8.02	2.63	13.27	-84.0	19.83
1358	~26	10.07	0.171	6.74	1.95	13.29	-82.0	20.07

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER _____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER _____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER __ None

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER __ None

PURGE OBSERVATIONS

purge water: cloudy.

purge rate: 160 ml/min → 400 ml/min,

(1) decreased @ 1424 to 125 ml/min

NOTES

tubing intake depth @ ~19.5' (BTOC)

- decanned water level @ 1504

- containerized purge water

collected gw sample @ BR-15

- vials: 440, 447, 452

SIGNATURE: _____

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 4, 2011

SITE ID: BR-15

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1255 END 1510.

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.35 FT

INITIAL DEPTH TO WATER: 17.05 FT

WELL DEPTH: 72.0 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 6 IN

FINAL DEPTH TO WATER: 21.06 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: — PPM

DRAWDOWN: 4.0 FT

DRAWDOWN VOLUME: ~5.9 GAL

PRODUCT THICKNESS: < 0.1 FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

PURGE RATE: 0.125 L/MIN

BEGIN PURGING: 1255

END PURGING: 1459

TOTAL VOL. PURGED: ~7 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOC) Comments
—	—	~~Pump on @~~	continued from page 1 of			—	—	—
1403	~~~2~~	10.07	0.170	5.45	1.62	13.30	-81.9	20.34
1408	~~~30~~ (*)	10.07	0.170	5.02	1.58	13.32	-82.2	20.59
1413	~~~32~~	10.05	0.170	4.39	1.52	13.29	-82.7	20.73
1418	—	10.06	0.171	5.04	1.30	13.32	-82.3	20.95
1423	—	10.06	0.171	5.47	1.27	13.38	-82.2	21.07
1428	~6 gal	10.06	0.171	5.61	1.29	13.30	-81.6	21.07
1433	(**)	10.07	0.170	4.89	1.33	13.18	-80.6	21.06
1438	—	10.05	0.170	4.70	1.48	13.12	-79.8	21.06
1443	—	10.05	0.170	4.72	1.43	13.10	-78.3	21.06
1448	—	10.04	0.171	4.51	1.40	13.09	-77.4	21.06
1453	—	10.03	0.170	4.57	1.35	13.12	-76.5	21.06
1458	~7 gal	10.03	0.171	4.40	1.32	13.12	-75.1	2106
1500	Collected	gw sample @	BR-15	—	—	—	—	—

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER _____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER _____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER __ None

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER __ None

PURGE OBSERVATIONS

see page 1 of 2

NOTES

see page 1 of 2

(*) purged ~5 gallons so far;

(**) decreased flow rate @ 1424 to 125 ml/min

SIGNATURE: _____

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 3, 2011

SITE ID: TW-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1430 END 1530

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): ~2.6 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER	7.98 FT	WELL DEPTH	17.3 FT	PID AMBIENT AIR	– PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	11.65 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	– PPM		
DRAWDOWN	3.7 FT	DRAWDOWN VOLUME	0.6 GAL	PRODUCT THICKNESS	<0.1 FT		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

WELL INTEGRITY:	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

PURGE RATE: 0.175 L/MIN

BEGIN PURGING: 1432

END PURGING: 1519

TOTAL VOL. PURGED: ~2.6 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOR) ~~Comments~~
1432	–	Pump on @ TW-04		–	–	–	–	8.04
1434	~2	7.32	0.775	≈2.4	0.34	9.21	-148.3	9.73
1439	~4	7.32	0.775	11.1	0.22	9.20	-162.5	11.44
1444	~5	7.33	0.775	8.32	0.16	9.19	-172.2	11.52
1449	~6	7.33	0.775	5.76	0.14	9.16	-185.6	11.69
1454	~7	7.35	0.770	4.07	0.11	9.13	-190.5	11.73
1459	~8	7.37	0.763	3.84	0.19	9.20	-198.7	11.75
1504	~9	7.37	0.760	3.32	0.22	9.22	-199.3	11.73
1509	~10	7.37	0.758	3.08	0.23	9.23	-200.7	11.69
1514	~11	7.39	0.755	2.93	0.22	9.22	-201.6	11.68
1519	~12	7.40	0.754	2.73	0.20	9.19	-202.9	11.66
1520	Collected	gw sample @	TW-04					

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER None
[ ] OTHER	[ ] OTHER	[X] OTHER None	

PURGE OBSERVATIONS

purge water: black flakes, slight anaerobic-like odor.

- decanned water level @ 1528

SIGNATURE:

NOTES

- tubing intake depth: ~15' (BTOR)
- containerized purge water;
- based on May 2010 gw sampling, increased flow rate to 400 ml/min; when DTW became stable, increased flow rate to ~175 ml/min
- collected VOC sample, vial #s: 433, 430, 421

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 3, 2011

SITE ID: TW-09

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1650 END 1805

JOB NUMBER: 3031052006 - 18.

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

INITIAL DEPTH TO WATER	10.01 FT	WELL DEPTH	17.70 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	- FT
FINAL DEPTH TO WATER	10.73 FT	SCREEN LENGTH	5 FT	PID AMBIENT AIR	- PPM
DRAWDOWN	0.7 FT	DRAWDOWN VOLUME	0.1 GAL	PID WELL MOUTH	- PPM
				PRODUCT THICKNESS	<0.1 FT
				PROTECTIVE CASING / WELL DIFFERENCE	0.3 FT
				WELL DIAMETER	2 IN

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.150 L/MIN | BEGIN PURGING: 1655 | END PURGING: 1754 | TOTAL VOL. PURGED: ~2.3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOR) Comments
1655	-	Pump on @	TW-09	-	-	-	-	10.12
1700	~1	7.07	0.980	15.7	1.16	10.22	-47.3	10.50
1705	~2	7.05	0.999	19.3	0.50	9.95	-46.0	10.54
1710	~3	7.04	1.002	2.73	0.32	9.94	-44.2	10.59
1715	~4	7.05	1.001	3.90	0.24	9.92	-45.8	10.63
1720	~5	7.05	1.001	2.63	0.26	9.89	-50.5	10.68
1725	~6	7.04	1.000	3.11	0.26	9.87	-54.1	10.71
1730	~7	7.05	1.000	1.83	0.29	9.81	-55.0	10.72
1735	~8	7.04	0.996	1.53	0.21	9.86	-55.5	10.72
1740	~9	7.04	0.992	1.95	0.20	9.80	-56.0	10.73
1745	~10	7.05	0.989	2.07	0.20	9.76	-54.7	10.73
1750	~11	7.04	0.984	1.73	0.22	9.70	-53.6	10.73
1755	Collected WG sample @		TW-09					
	bbs							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER __ None
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER __ None	

PURGE OBSERVATIONS

purge water: cloudy, black fragments in water.

SIGNATURE: _____

NOTES

- tubing intake depth: ~15' (BTOR)
- Containerized purge water @ TW-09;
- Collected WG sample @ 1755 analytes: 905, 417, 410
- decomm'd water level @ 1801

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 4, 2011 / May 5, 2011

SITE ID: TW-17

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1510 END 1610

JOB NUMBER: 3031052006 -18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER; [ ] TOP OF PROTECTIVE CASING; [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.4 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER: 6.89 FT

WELL DEPTH: 17.45 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: <17.1 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY: CAP YES; CASING YES; LOCKED YES; COLLAR YES

DRAWDOWN: ~10.2 FT

DRAWDOWN VOLUME: ~1.6 GAL

PRODUCT THICKNESS: ~1.7 FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.150 L/MIN

BEGIN PURGING: 1512

END PURGING: 1602

TOTAL VOL. PURGED: ~1.6 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Date: May 4, 2011 (1512–1602); May 5, 2011 (0739–0758)

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOR) Comments
1512	<1	Pump on @	TW-17	—	—	—	—	6.93
1520	~4	6.42	0.870	243	0.47	9.35	-101.6	9.71
1525	~5.5	6.36	0.855	895	0.34	9.45	-99.7	11.20
1530	~6.5	6.30	0.805	529	1.02	9.50	-82.6	12.29
1535	~8	6.52	0.881	72.8	8.01	9.64	-143.1	13.50
1540	~9	6.52	0.877	397	7.47	9.67	-146.7	14.12
1545	~10	6.51	0.874	393	7.01	9.71	-143.3	14.72
1550	~11	6.64	0.870	261	2.67	9.47	-142.4	15.31
1555	~12	6.63	0.871	292	1.40	9.55	-142.0	16.03
1600	~13	6.61	0.856	>1000	0.50	9.42	-141.6	17.01
1602	pump	off	@ TW-17;	—	—	—	—	<17.1;
0739	—	—	—	—	—	—	—	6.30
0753	~1	6.24	0.863	94.1	2.21	9.77	-149.8	7.31
0758	~2	6.31	0.856	104 ~~8~~	1.80	9.89	-169.3	8.60

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC; [ ] SUBMERSIBLE; [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED; [X] HIGH DENSITY POLYETHYLENE; [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE; [ ] STAINLESS STEEL; [X] OTHER None

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON; [X] OTHER None

PURGE OBSERVATIONS

purge water very turbid → white ORC material;

(*) prior to sampling/purging activities removed material off the top off the water table

purge rate: 150 ml/min; lowest achievable rate with geopump

(*) collected VOC sample @ 0800 (05605-11) vial #s: 936, 927, 929

SIGNATURE: [signature]

NOTES

tubing intake depth @ ~15' (BTOR).

- 'ORC' in well, purged off top of water table prior to sampling

- contaminated purge water;

- trains continue to go by very frequently.

- deconned water level @ 1610

- pump on May 5, 2011 @ 0747; flow rate ~150 ml/min, water cloudy, w/white pieces

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 4, 2011

SITE ID: TW-20

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0940 END 1040

JOB NUMBER: 3031052006 -18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND)	2.3 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.27 FT		
INITIAL DEPTH TO WATER	10.81 FT	WELL DEPTH	17.22 FT	PID AMBIENT AIR	– PPM
WELL DIAMETER	2 IN				
FINAL DEPTH TO WATER	11.49 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	– PPM
DRAWDOWN	~0.6 FT	DRAWDOWN VOLUME	~0.1 GAL	PRODUCT THICKNESS	<0.1 FT

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.225 L/MIN	0942	1029	~3 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW (BTOR). Comments
0942	<1	Pump on @ TW-20		–	–	–	–	10.86
0947	~1.5	7.37	1.005	1.90	5.83	8.52	41.8	11.31
0952	~2.5	7.36	1.005	1.31	5.71	8.48	36.8	11.38
0957	~4	7.36	1.004	1.09	5.54	8.44	38.0	11.43
1002	~5	7.36	1.010	0.70	5.39	8.40	41.6	11.44
1007	~6.5	7.36	1.027	0.39	5.16	8.41	44.0	11.45
1012	~7.5	7.36	1.032	0.26	5.29	8.44	45.8	11.44
1017	~8.5	7.37	1.033	0.46	5.17	8.44	46.7	11.44
1022	~9.5	7.38	1.044	0.37	5.03	8.58	47.5	11.44
1027	~10.5	7.39	1.055	0.34	4.96	8.68	47.8	11.44
1030	collected VOC sample @ TW-20				–	–	–	11.44

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER __ None
[ ] OTHER	[ ] OTHER	[X] OTHER __ None	

PURGE OBSERVATIONS

purge water: colorless,

purge rate: 225 ml/min.

SIGNATURE

NOTES

Tubing intake depth @ ~15' (BTOR)

- containerized purge water;

- decanned water level @ 1035

collected VOC grab sample @ TW-20

vial #s: 441, 446, 453

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 4, 2011

SITE ID: W-5

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1630 END 1740

JOB NUMBER: 3031052006 -18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): - FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER	4.00 FT	WELL DEPTH	21.8 FT	PID AMBIENT AIR	- PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	8.30 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	- PPM		
DRAWDOWN	4.3 FT	DRAWDOWN VOLUME	~0.7 GAL	PRODUCT THICKNESS	< 0.1 FT		

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: 0.175 L/MIN

BEGIN PURGING: 1632

END PURGING: 1729

TOTAL VOL. PURGED: ~2.7 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	DTW ~~Comments~~
1632	2	Pump on @ W-5		-	-	-	-	4.17
1635	-	6.90	1.351	40.5	1.78	10.79	-101.6	4.95
1640	-	6.92	1.365	23.4	0.57	10.70	-82.2	6.63
1645	-	6.90	1.370	21.8	0.63	10.60	-70.1	7.87
1650	-	6.93	1.375	14.5	0.45	10.62	-59.4	8.30
1655	-	6.93	1.378	11.7	0.49	10.61	-54.0	8.26
1700	-	6.93	1.382	5.67	0.44	10.65	-48.8	8.30
1705		6.93	1.382	3.87	0.41	10.72	-45.4	8.30
1710		6.93	1.385	3.26	0.36	10.72	-44.0	8.30
1715		6.92	1.386	3.06	0.34	10.71	-42.9	8.30
1720		6.94	1.388	3.12	0.41	10.72	-42.5	8.30
1725		6.93	1.342	3.20	0.38	10.73	-45.9	8.30
1730	Collected gw vol	sample @	W-5		-	-	-	-

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER __ None
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER __ None	

PURGE OBSERVATIONS

purge water : cloudy, some orange flock

purge rate : 175 ml/min

SIGNATURE: _____

NOTES

- tubing intake depth @ ~19' (BTOR).
- trains constantly pass by;
- containerized purge water;
- collected duplicate sample here @ W-5
  - vial #s: 460, 451, 472, 463, 471, 469
- disconnect water level @ 1746

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 4, 2011

SITE ID: QARB01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1745 END 1800

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): ____ FT

PROTECTIVE CASING / WELL DIFFERENCE: ____ FT

INITIAL DEPTH TO WATER: ____ FT

WELL DEPTH: ____ FT

PID AMBIENT AIR: ____ PPM

WELL DIAMETER: ____ IN

FINAL DEPTH TO WATER: ____ FT

SCREEN LENGTH: ____ FT

PID WELL MOUTH: ____ PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	___	___	___
CASING	___	___	___
LOCKED	___	___	___
COLLAR	___	___	___

DRAWDOWN: ____ FT

DRAWDOWN VOLUME: ____ GAL

PRODUCT THICKNESS: ____ FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: ____ L/MIN

BEGIN PURGING: ____

END PURGING: ____

TOTAL VOL. PURGED: ____ GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
		Pump on @						
				PAT				

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [x] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] OTHER __ None

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [x] OTHER __ None

PURGE OBSERVATIONS

purge water: colorless.

SIGNATURE: _____

NOTES

sample time @ 1755

collected rinsate blank sample using a peristaltic pump;

④ pumped DI water through LDPE tubing and silicone tubing, as to simulate LF gw sampling.

- Vials: 439, 448, 451

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 3, 21

SITE ID: QAFB01

SITE TYPE: Monitor Well / Field Blank

SITE ACTIVITY: START 0750 END 0755

JOB NUMBER: 3031052006-18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- ☐ TOP OF WELL RISER
- ☐ TOP OF PROTECTIVE CASING
- ☐ OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): ____ FT

PROTECTIVE CASING / WELL DIFFERENCE: ____ FT

INITIAL DEPTH TO WATER: ____ FT

WELL DEPTH: ____ FT

PID AMBIENT AIR: ____ PPM

WELL DIAMETER: ____ IN

FINAL DEPTH TO WATER: ____ FT

SCREEN LENGTH: ____ FT

PID WELL MOUTH: ____ PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	___	___	___
CASING	___	___	___
LOCKED	___	___	___
COLLAR	___	___	___

DRAWDOWN: ____ FT

DRAWDOWN VOLUME: ____ GAL

PRODUCT THICKNESS: ____ FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: ____ L/MIN

BEGIN PURGING: ____

END PURGING: ____

TOTAL VOL. PURGED: ____ GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
		Pump on @						
			NA					

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☒ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ OTHER _____

TYPE OF TUBING
- ☐ TEFLON OR TEFLON LINED
- ☒ HIGH DENSITY POLYETHYLENE
- ☐ OTHER _____

TYPE OF PUMP MATERIAL
- ☐ POLYVINYL CHLORIDE
- ☐ STAINLESS STEEL
- ☒ OTHER __ None

TYPE OF BLADDER MATERIAL (if applicable)
- ☐ TEFLON
- ☒ OTHER __ None

PURGE OBSERVATIONS

NA

SIGNATURE: _____

NOTES

- Collected field blank into (3) 40 ml VOA vials;
- vial #s: 416, 475, 411

- DI water used for QAFB01, Tops, pure steams distilled water;

Mactec Engineering and Consulting

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments Semi-Annual Sampling Event

DATE: May 3, 2011

SITE ID: QATB01

SITE TYPE: Monitor Well / Trip Blank

SITE ACTIVITY: START 0800 END 0805

JOB NUMBER: 3031052006 - 18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- ☐ TOP OF WELL RISER
- ☐ TOP OF PROTECTIVE CASING
- ☐ OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): ____ FT

PROTECTIVE CASING / WELL DIFFERENCE: ____ FT

INITIAL DEPTH TO WATER: ____ FT

WELL DEPTH: ____ FT

PID AMBIENT AIR: ____ PPM

WELL DIAMETER: ____ IN

FINAL DEPTH TO WATER: ____ FT

SCREEN LENGTH: ____ FT

PID WELL MOUTH: ____ PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	___	___	___
CASING	___	___	___
LOCKED	___	___	___
COLLAR	___	___	___

DRAWDOWN: ____ FT

DRAWDOWN VOLUME: DAS GAL

PRODUCT THICKNESS: ____ FT

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: ____ L/MIN

BEGIN PURGING: ____

END PURGING: ____

TOTAL VOL. PURGED: ____ GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	Comments
		Pump on @						
			DAS					

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☒ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ OTHER _____

TYPE OF TUBING DAS
- ☐ TEFLON OR TEFLON LINED
- ☒ HIGH DENSITY POLYETHYLENE
- ☐ OTHER _____

TYPE OF PUMP MATERIAL
- ☐ POLYVINYL CHLORIDE
- ☐ STAINLESS STEEL
- ☒ OTHER __ None

TYPE OF BLADDER MATERIAL (if applicable)
- ☐ TEFLON
- ☒ OTHER __ None

PURGE OBSERVATIONS

NA

SIGNATURE: _____

NOTES

Labeled (2) pre-filled 40 ml VOA vials;

Vial #s: 1404, 6423

FILE COPY

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FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2011 Semi-Annual Sampling Event

DATE: 11/1/11

SITE ID: OB-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0908 END 1130

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.3 FT

INITIAL DEPTH TO WATER: 3.61 FT

WELL DEPTH: 16.45 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 7.90 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY: CAP YES; CASING YES; LOCKED YES; COLLAR YES

DRAWDOWN: 4.29 FT

DRAWDOWN VOLUME: 0.69 GAL

PRODUCT THICKNESS: — FT

((Initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE: 0.1, 0.15, L/MIN

BEGIN PURGING: 0924

END PURGING: 1116

TOTAL VOL. PURGED: 3.4 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0925	fc	6.22	0.745	30.9	1.22	17.02	-46.6	5.55	strong odor - black
0933	2	6.30	0.726	27.4	-0.49	17.00	-118.0	7.14	
0951	3	6.22	1.208	15.2	-0.68	16.80	-152.7	7.60	
0959	1	6.24	1.277	15.0	-0.42	16.83	-179.4	7.95	
1017	2	6.25	1.388	16.5	-0.40	16.76	-190.7	7.80	
1037	2	6.30	1.660	11.5	-0.64	17.10	-206.1	7.75	
1057 ~~1105~~	2	6.32	1.728	11.0	-0.51	17.53	-212.2	7.78	
1106	1	6.33	1.737	9.2	-0.50	17.59	-213.9	7.86	
1116	1	6.34	1.746	10.9	-0.54	17.80	-216.5	7.90	

(Margin notes: ☆ marks beside 0925–0959; "100ml/min" beside 1017–1116)

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER N/A

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER N/A

PURGE OBSERVATIONS

Tubing Intake @ 14'

initial slug slightly black

☆ turned down pump to attempt to reduce drawdown

NOTES

	Preservation	Time Collected
[X] VOC	HCL	1125

Sampled @ 100ml/min

SIGNATURE: [signature]

.5 1.8 1.4

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/1/11

SITE ID: OB-06

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1145 END 1305

JOB NUMBER: 3031052008.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.4 FT

INITIAL DEPTH TO WATER: 3.64 FT

WELL DEPTH: 16.45 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 5.51 FT

SCREEN LENGTH: 10 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY: CAP YES; CASING YES; LOCKED YES; COLLAR YES

DRAWDOWN: 1.87 FT

DRAWDOWN VOLUME: 0.3 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE: .125 / 0.1 L/MIN

BEGIN PURGING: 1152

END PURGING: 1241

TOTAL VOL. PURGED: 1.2 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1155	5c	6.67	1.107	13.0	6.74	18.60	-163.3	4.95	slowed pump
1211	2	6.55	1.106	17.6	0.17	18.91	-198.6	5.36	
1222	1	6.54	1.112	17.2	0.26	18.92	-204.8	5.50	
1231	1	6.55	1.125	16.5	0.25	19.12	-205.4	5.50	
1241	1	6.54	1.135	14.9	0.26	19.26	-209.8	5.51	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER _____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER _____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 11

NOTES

		Preservation	Time Collected
[X]	VOC	HCL	1244
[ ]			
[ ]			
[ ]			

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/2/11

SITE ID: OB-08

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1355 END 1510

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND)	— FT	PROTECTIVE CASING / WELL DIFFERENCE	0.35 FT		
INITIAL DEPTH TO WATER	5.35 FT	WELL DEPTH	25.3 FT	PID AMBIENT AIR	— PPM
WELL DIAMETER	2 IN				
FINAL DEPTH TO WATER	7.48 FT	SCREEN LENGTH	10 FT	PID WELL MOUTH	— PPM
DRAWDOWN	2.13 FT	DRAWDOWN VOLUME	0.34 GAL	PRODUCT THICKNESS	— FT

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

((Initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE: .125 L/MIN | BEGIN PURGING: 1407 | END PURGING: 1457 | TOTAL VOL. PURGED: 1.6 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1413	fc	6.98	1.109	3.6	1.47	18.47	-96.6	6.35	
1425	2	6.95	1.086	4.4	0.19	18.49	-166.2	7.18	
1441	2	6.91	1.085	5.8	0.11	18.63	-178.1	7.56	
1449	1	6.93	1.084	5.1	0.10	18.65	-181.5	7.48	
1457	1	6.93	1.085	3.9	0.10	18.69	-183.0	7.48	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER _____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER _____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 20'

NOTES

		Preservation	Time Collected
[X]	VOC	HCL	1502
[ ]			
[ ]			
[ ]			

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/3/11

SITE ID: BR-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0751 END 0924

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): 2.3 FT

PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER	12.18 FT	WELL DEPTH	38.6 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	12.77 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM	WELL INTEGRITY: CAP	YES X NO — N/A —
DRAWDOWN	0.59 FT	DRAWDOWN VOLUME	0.38 GAL	PRODUCT THICKNESS	— FT	CASING	X — —
						LOCKED	X — —
						COLLAR	X — —

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PURGE RATE: .22/.142 L/MIN

BEGIN PURGING: 0803

END PURGING: 0912

TOTAL VOL. PURGED: 2.7 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0807	Ec	6.55	0.286	43.0	1.01	14.57	157.8	12.40	
0816	2	9.03	0.217	32.2	0.37	14.46	90.6	12.66	
0830	2	9.34	0.215	17.3	0.19	14.25	65.7	12.74	
0836	1	9.40	0.215	13.3	0.16	14.22	50.0	12.76	
0843	1	9.44	0.216	10.2	0.15	14.22	35.2	12.79	
0850	1	9.47	0.216	9.5	0.13	14.17	20.1	12.78	
0858	1	9.48	0.217	7.4	0.13	14.18	7.6	12.77	
0905	1	9.48	0.219	6.5	0.13	14.17	-0.8	12.77	
0912	1	9.48	0.220	5.8	0.13	14.21	-7.6	12.77	
		✓							

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER _____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER _____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 15.18

NOTES

	Preservation	Time Collected
[X] VOC	HCL	0915
[ ]		
[ ]		
[ ]		

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/2/11

SITE ID: BG-02

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1120 END 1225

JOB NUMBER: 3031062006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER _____

INITIAL DEPTH TO WATER	21.80 FT	WELL DEPTH	44.0 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	— FT
FINAL DEPTH TO WATER	22.39 FT	SCREEN LENGTH	NA FT	PID AMBIENT AIR	— PPM
DRAWDOWN	0.59 FT	DRAWDOWN VOLUME	~~0.09~~ 0.38 GAL	PID WELL MOUTH	— PPM
				PRODUCT THICKNESS	— FT

((initial - final) x 0.16 (2-Inch) or x 0.65 (4-Inch) or x 1.5 (6-Inch)) CW

PROTECTIVE CASING / WELL DIFFERENCE	0.45 FT	WELL DIAMETER	4 IN		

WELL INTEGRITY:

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

PURGE RATE: 0.2/1.14 L/MIN | BEGIN PURGING: 1120 | END PURGING: 1205 | TOTAL VOL. PURGED: 1.75 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1123	fc	7.49	0.782	29.8	2.44	14.99	-96.9	22.07	
1132	2	7.35	0.789	23.8	0.38	14.98	-134.0	22.26	
1137	1	7.33	0.791	26.9	0.30	14.98	-137.8	22.30	
1143	1	7.33	0.794	26.7	0.30	15.07	-137.5	22.33	
1150	1	7.32	0.801	21.5	0.28	15.19	-134.4	22.39	
1157	1	7.31	0.819	14.3	0.28	15.29	-135.0	22.39	
1205	1	7.28	0.840	15.6	0.26	15.34	-132.1	22.39	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER _____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH-DENSITY POLYETHYLENE [ ] OTHER _____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 24.8

NOTES

		Preservation	Time Collected
[X]	VOC	HCL	1208
[ ]			
[ ]			

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/2/11

SITE ID: BR-03

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0808 END 0952

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [x] TOP OF PROTECTIVE CASING
- [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: — FT

INITIAL DEPTH TO WATER: 9.07 FT

WELL DEPTH: 40.1 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 4 IN

FINAL DEPTH TO WATER: 10.64 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:	YES	NO	N/A
CAP	X	—	—
CASING	X	—	—
LOCKED	X	—	—
COLLAR	X	—	—

DRAWDOWN: 1.57 FT

DRAWDOWN VOLUME: ~~0.25~~ 1.02 GAL

((initial - final) x 0.16 {2-inch} or x 0.65 {4-inch} or x 1.5 {6-inch})

PRODUCT THICKNESS: — FT

PURGE RATE: .28/.2/.166 L/MIN .125 : sampled at

BEGIN PURGING: 0829

END PURGING: 0936

TOTAL VOL. PURGED: 2.99 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0832	FC	6.27	0.724	54.9	2.91	14.58	164.3	9.53	
0839	2	8.50	0.677	32.6	0.91	15.20	121.1	10.20	slowed pump
0843	1	8.63	0.673	32.0	0.81	15.05	117.8	10.41	
0853	2	8.73	0.670	29.1	0.67	14.90	111.0	10.66	
0906	2	8.75	0.669	24.7	0.62	14.91	105.2	10.80	
0914	1.5	8.76	0.670	22.6	0.58	14.91	101.4	10.85	
0920	1	8.76	0.670	20.1	0.57	14.96	97.4	10.89	
0928	1	8.77	0.664	16.0	0.61	14.49	91.0	10.70	
0936	1	8.77	0.667	12.1	0.57	14.61	84.1	10.64	

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.8

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [x] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [x] HIGH DENSITY POLYETHYLENE
- [ ] OTHER

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [x] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [x] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 12

NOTES

		Preservation	Time Collected
[x]	VOC	HCL	0940

SIGNATURE: [signature]

GW_Sample_Form

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/1/11

SITE ID: BR-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1318 END 1432

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER: 17.64 FT

WELL DEPTH: 44.2 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 4 IN

FINAL DEPTH TO WATER: 17.63 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: — PPM

DRAWDOWN: 0.01 FT

DRAWDOWN VOLUME: ~~0.0016~~ 0.0065 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED			
COLLAR	X		

PURGE RATE: ~~.142~~/0.1 L/MIN

BEGIN PURGING: 1321

END PURGING: 1411

TOTAL VOL. PURGED: 1.6 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1324	fc	8.37	0.137	63.0	1.91	17.85	-116.6	17.63	
1331	1	8.27	0.103	30.5	0.71	17.41	-139.7	17.63	
1341	1	8.24	0.102	12.7	0.73	17.23	-181.1	17.63	
1349	1	8.29	0.101	8.2	0.68	17.14	-207.6	17.63	
1357	1	8.33	0.101	5.0	0.68	17.09	-225.3	17.63	
1403	1	8.34	0.101	4.0	0.68	17.04	-228.5	17.63	
1411	1	8.36	0.100	3.6	0.65	17.05	-228.1	17.63	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- [X] PERISTALTIC
- [ ] SUBMERSIBLE
- [ ] OTHER _____

TYPE OF TUBING
- [ ] TEFLON OR TEFLON LINED
- [X] HIGH DENSITY POLYETHYLENE
- [ ] OTHER _____

TYPE OF PUMP MATERIAL
- [ ] POLYVINYL CHLORIDE
- [ ] STAINLESS STEEL
- [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable)
- [ ] TEFLON
- [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 20.6

NOTES

		Preservation	Time Collected
[ ]	VOC	HCL	1420
[ ]	VOC (MS)	HCL	1420
[ ]	VOC (MSD)	HCL	1420

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2011 Semi-Annual Sampling Event
DATE: 11/1/11
SITE ID: BR-10
SITE TYPE: Monitor Well
SITE ACTIVITY: START 1432 END 1530
JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER; [X] TOP OF PROTECTIVE CASING; [ ] OTHER ____
PROTECTIVE CASING STICKUP (FROM GROUND): — FT
PROTECTIVE CASING / WELL DIFFERENCE: 0.3 FT

INITIAL DEPTH TO WATER	17.23 FT	WELL DEPTH	47.0 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	6 IN
FINAL DEPTH TO WATER	17.23 FT	SCREEN LENGTH	— FT	PID WELL MOUTH	— PPM		
DRAWDOWN	— FT	DRAWDOWN VOLUME	— GAL	PRODUCT THICKNESS	— FT		

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

PURGE RATE: 0.2 L/MIN
BEGIN PURGING: 1444
END PURGING: 1513
TOTAL VOL. PURGED: 1.5 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1447	FC	8.19	0.469	83.8	1.28	16.61	-103.6	17.23	cloudy
1453	1	8.15	0.466	35.5	1.44	16.40	-263.5	17.23	clear
1458	1	8.17	0.469	29.3	1.37	16.37	-233.7	17.23	
1503	1	8.15	0.469	21.0	1.27	16.40	-240.8	17.23	
1508	1	8.16	0.469	17.6	1.22	16.41	-231.4	17.23	
1513	1	8.19	0.470	18.3	1.33	16.20	-223.0	17.23	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC; [ ] SUBMERSIBLE; [ ] OTHER ____
TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED; [X] HIGH DENSITY POLYETHYLENE; [ ] OTHER ____
TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE; [ ] STAINLESS STEEL; [X] OTHER NA
TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON; [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 20.2

NOTES

		Preservation	Time Collected
[X]	VOC	HCL	1516
[ ]			
[ ]			
[ ]			

SIGNATURE: _____

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/2/11

SITE ID: BR-15

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1510 END 1855

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER

INITIAL DEPTH TO WATER	18.20 FT	WELL DEPTH	72 FT	PID AMBIENT AIR	— PPM
FINAL DEPTH TO WATER	21.81 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	— PPM
DRAWDOWN	3.61 FT	DRAWDOWN VOLUME	5.4 GAL	PRODUCT THICKNESS	— FT

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.35 FT

WELL DIAMETER: 6 IN

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE: 0.2 L/MIN (varied)

BEGIN PURGING: 1518

END PURGING: 1848

TOTAL VOL. PURGED: ~10 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1522	FC	10.72	0.229	5.4	3.05	17.67	-128.2	18.38	
1533	2	10.76	0.239	0.1	2.46	17.57	-97.2	18.25	
1543	2	10.71	0.241	0.2	2.49	17.62	-80.7	19.08	slowed pump
1550	1	10.69	0.243	0.1	2.38	17.77	-71.4	19.23	" "
1558	1	10.70	0.244	0.3	2.26	17.93	-64.6	19.38	
1617	2	10.77	0.246	0.1	2.17	18.20	-50.4	19.74	
1640	6.5	10.74	0.250	0.4	2.38	17.43	-31.9	20.38	
1715	3	10.80	0.238	0.1	2.39	17.23	-16.7	20.78	
1722	1 (cw)	10.67	0.218	0.9	1.95	16.74	-10.7	20.91	
1729	1	10.59	0.216	0.4	1.73	16.75	-8.1	21.00	
1738	1	10.59	0.215	0.3	1.60	16.62	-8.5	21.11	
1759	6	9.51	0.214	0.5	0.30	15.93	-5.6	21.58	
1817	2.5	9.32	0.220	0.4	0.19	15.81	-12.7	21.75	
1830	1	9.36	0.219	0.7	0.20	15.72	-20.0	21.80	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [X] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [X] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 21.2

☆ sped up to see if can find where the water will stabilize w/drawdown @ 1624 ~400mL/min until 1640

☆☆ dialed back 1650 to ~~200mL~~ cw 142mL/min

SIGNATURE:

NOTES

	Preservation	Time Collected
[X] VOC	HCL	1852

paused @ 1640 -> ~~1650~~ 1656 to dump purge bucket in drum

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments, 2011 Semi-Annual Sampling Event

DATE: 11/2/11

SITE ID: BR-15 cont..

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1510 END 1855

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [ ] TOP OF WELL RISER [X] TOP OF PROTECTIVE CASING [ ] OTHER ____

INITIAL DEPTH TO WATER	18.20 FT	WELL DEPTH	72 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	— FT
FINAL DEPTH TO WATER	21.81 FT	SCREEN LENGTH	NA FT	PID AMBIENT AIR	— PPM
DRAWDOWN	3.61 FT	DRAWDOWN VOLUME	5.4 GAL	PID WELL MOUTH	— PPM
				PRODUCT THICKNESS	— FT
				PROTECTIVE CASING / WELL DIFFERENCE	0.35 FT
				WELL DIAMETER	6 IN

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING			
LOCKED			
COLLAR	X		

PURGE RATE: Varied L/MIN

BEGIN PURGING: 1518

END PURGING: 1848

TOTAL VOL. PURGED: ~10 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

continued sampled @ 125ml/min

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1838	1	9.38	0.219	1.0	0.21	15.69	-23.3	21.81	
1848	1	9.36	0.221	0.9	0.21	15.63	-26.2	21.81	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [X] SUBMERSIBLE [ ] OTHER ____

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER ____

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ ____

NOTES

	Preservation	Time Collected
[X] VOC	HCL	1852
[ ]		
[ ]		
[ ]		

SIGNATURE: [signature]

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/1/11

SITE ID: TW-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1530 END 1705

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.6 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER: 8.42 FT

WELL DEPTH: 17.3 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 10.85 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY: CAP YES X NO — N/A —; CASING LOCKED YES X NO — N/A —; COLLAR YES X NO — N/A —

DRAWDOWN: 2.43 FT

DRAWDOWN VOLUME: 0.4 GAL

PRODUCT THICKNESS: — FT

((Initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE: .05/.10/.142 L/MIN

BEGIN PURGING: 1541

END PURGING: 1655

TOTAL VOL. PURGED: 1.9 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1546	fc	6.76	0.673	9.2	4.60	16.64	-43.9	9.95	slowed pump
1553	1	6.65	0.665	8.7	2.32	16.43	-52.2	10.85	" "
1600	1	6.73	0.656	5.9	2.47	16.32	-66.3	11.26	
1611	1	6.80	0.642	4.3	2.43	16.28	-87.4	11.42	
1620	1	6.85	0.630	3.1	2.50	16.19	-99.6	11.51	
1631	W 1	6.91	0.626	1.5	3.47	16.00	-111.1	11.15	
1643	1	6.97	0.624	1.5	3.07	15.94	-114.5	10.93	
1655	1	6.98	0.618	1.5	3.62	15.82	-122.9	10.85	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing intake @ 14.8

NOTES

[X] VOC — Preservation: HCL — Time Collected: 1659

SIGNATURE:

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/2/11

SITE ID: TW-09

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0955 END 1100

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND)	— FT	PROTECTIVE CASING / WELL DIFFERENCE	0.3 FT		
INITIAL DEPTH TO WATER	9.46 FT	WELL DEPTH	17.70 FT	PID AMBIENT AIR	— PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	10.31 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	— PPM	WELL INTEGRITY: CAP	YES	NO	N/A
DRAWDOWN	0.85 FT	DRAWDOWN VOLUME	0.136 GAL	PRODUCT THICKNESS	— FT	CASING			
						LOCKED			
						COLLAR			

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
.10/.125 L/MIN	1000	1046	1.5 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1006	Fc	6.70	1.185	3.5	1.81	16.66	-56.3	10.15	
1017	2	6.67	1.220	0.8	0.34	16.83	-131.8	10.32	
1024	1	6.67	1.226	0.2	0.23	16.75	-143.8	10.25	
1031	1	6.67	1.225	0.6	0.23	16.66	-157.4	10.28	
1039	1	6.66	1.226	0.8	0.21	16.72	-159.8	10.30	
1046	1	6.67	1.228	0.8	0.20	16.90	-160.4	10.31	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER	[ ] OTHER	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 15

NOTES

		Preservation	Time Collected
[X]	VOC	HCL	1050
[ ]			
[ ]			
[ ]			

SIGNATURE: Cathy Walker

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/3/11

SITE ID: TW-17

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0925 END 1030

JOB NUMBER: 3031052006.16

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.4 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER: 6.71 FT

WELL DEPTH: 17.45 FT

PID AMBIENT AIR: — PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 12.55 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: — PPM

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

DRAWDOWN: 5.84 FT

DRAWDOWN VOLUME: 0.93 GAL

PRODUCT THICKNESS: — FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE: .05-.10 L/MIN

BEGIN PURGING: 0928

END PURGING: 1022

TOTAL VOL. PURGED: 1.25 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
0933	fc	5.72	1.255	45.6	1.04	14.96	-54.9	8.35	cloudy/white
0944	1	5.76	1.227	50.1	0.31	14.69	-70.1	9.40	
0958	1	5.82	1.148	48.4	0.27	14.61	-76.6	9.48	
1019	1	5.87	1.062	110.2	0.17	14.83	-80.8	12.2	milky looking
1022	~200mL	5.88	1.056	102.7	0.17	14.83	-81.4	12.55	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 15

per KSO - let wl drop to 12.5' and sample while in screened interval

unable to stop drawdown

SIGNATURE:

NOTES

	Preservation	Time Collected
[X] VOC	HCL	1024

GW_Sample_Form

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/2/11

SITE ID: TW-20

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1245 END 1355

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND)	2.3 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.27 FT		
INITIAL DEPTH TO WATER	11.04 FT	WELL DEPTH	17.22 FT	PID AMBIENT AIR	— PPM
WELL DIAMETER	2 IN	FINAL DEPTH TO WATER	11.45 FT	SCREEN LENGTH	5 FT
PID WELL MOUTH	— PPM	DRAWDOWN	0.41 FT	DRAWDOWN VOLUME	0.07 GAL
PRODUCT THICKNESS	— FT				

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

PURGE RATE	BEGIN PURGING	END PURGING	TOTAL VOL. PURGED
0.142 L/MIN	1254	1343	1.8 GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1259	FC	7.16	1.270	1.4	2.80	16.04	70.1	11.28	
1313	2.0	6.96	1.329	1.8	2.13	16.09	24.1	11.41	
1327	2.0	6.93	1.332	1.8	1.80	16.17	32.0	11.43	
1336	1	6.93	1.333	1.8	1.69	16.35	34.5	11.44	
1343	1	6.93	1.329	1.8	1.59	16.26	36.1	11.45	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (If applicable)
[X] PERISTALTIC	[ ] TEFLON OR TEFLON LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[X] OTHER NA
[ ] OTHER _____	[ ] OTHER _____	[X] OTHER NA	

PURGE OBSERVATIONS

Tubing Intake @ 14.75

NOTES

	Preservation	Time Collected
[X] VOC	HCL	1346

SIGNATURE: _____

GW_Sample_Form

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/3/11

SITE ID: W-5

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1030 END 1210

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

INITIAL DEPTH TO WATER	4.93 FT	WELL DEPTH	21.8 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	— FT
FINAL DEPTH TO WATER	8.54 FT	SCREEN LENGTH	5 FT	PID AMBIENT AIR	— PPM
DRAWDOWN	3.61 FT	DRAWDOWN VOLUME	0.58 GAL	PID WELL MOUTH	— PPM
				PRODUCT THICKNESS	— FT
				PROTECTIVE CASING / WELL DIFFERENCE	0.25 FT
				WELL DIAMETER	2 IN

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

WELL INTEGRITY:

	YES	NO	N/A
CAP	X		
CASING	N/A		
LOCKED	X		
COLLAR	X		

PURGE RATE: 0.42/.125 L/MIN

BEGIN PURGING: 1042

END PURGING: 1152

TOTAL VOL. PURGED: 2.3 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
1046	FC	6.56	1.463	4.7	0.95	15.78	-50.0	6.27	
1058	2	6.58	1.469	2.5	0.23	15.91	-56.9	7.65	
1112	2	6.57	1.469	1.5	0.15	15.93	-51.2	8.28	
1120	1	6.57	1.469	0.2	0.14	15.93	-49.7	8.40	
1136	2	6.56	1.470	0.2	0.15	15.88	-47.2	8.54	
1144	1	6.55	1.469	0.4	0.15	15.94	-47.3	8.54	
1152	1	6.55	1.467	0.7	0.15	15.89	-47.3	8.54	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] PERISTALTIC [ ] SUBMERSIBLE [ ] OTHER

TYPE OF TUBING: [ ] TEFLON OR TEFLON LINED [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] POLYVINYL CHLORIDE [ ] STAINLESS STEEL [X] OTHER NA

TYPE OF BLADDER MATERIAL (if applicable): [ ] TEFLON [X] OTHER NA

PURGE OBSERVATIONS

Tubing Intake @ 19.3

NOTES

	Preservation	Time Collected
VOC (DUP)	HCL	~~1258~~ 1158
		~~1158~~ 1158

SIGNATURE:

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/2/11

SITE ID: QARB01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1855 END 1906

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- ☐ TOP OF WELL RISER
- ☐ TOP OF PROTECTIVE CASING
- ☐ OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): _____ FT

PROTECTIVE CASING / WELL DIFFERENCE: _____ FT

INITIAL DEPTH TO WATER: _____ FT

WELL DEPTH: _____ FT

PID AMBIENT AIR: _____ PPM

WELL DIAMETER: _____ IN

FINAL DEPTH TO WATER: _____ FT

SCREEN LENGTH: _____ FT

PID WELL MOUTH: _____ PPM

DRAWDOWN: _____ FT

DRAWDOWN VOLUME: _____ GAL

PRODUCT THICKNESS: _____ FT

((initiel - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

WELL INTEGRITY:	YES	NO	N/A
CAP	___	___	___
CASING	___	___	___
LOCKED	___	___	___
COLLAR	___	___	___

PURGE RATE: _____ L/MIN

BEGIN PURGING: _____

END PURGING: _____

TOTAL VOL. PURGED: _____ GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
- ☐ PERISTALTIC
- ☐ SUBMERSIBLE
- ☐ OTHER _____

TYPE OF TUBING
- ☐ TEFLON OR TEFLON LINED
- ☐ HIGH DENSITY POLYETHYLENE
- ☐ OTHER _____

TYPE OF PUMP MATERIAL
- ☐ POLYVINYL CHLORIDE
- ☐ STAINLESS STEEL
- ☐ OTHER _____

TYPE OF BLADDER MATERIAL (if applicable)
- ☐ TEFLON
- ☐ OTHER _____

PURGE OBSERVATIONS

Tubing Intake @ _____

SIGNATURE: _____

NOTES

		Preservation	Time Collected
☒	VOC	HCL	1905
☐			
☐			
☐			

collected using unused tubing and DI water

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE:

SITE ID: QATB01

SITE TYPE: Monitor Well

SITE ACTIVITY: START END

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- [ ] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): FT

PROTECTIVE CASING / WELL DIFFERENCE: FT

INITIAL DEPTH TO WATER: FT

WELL DEPTH: FT

PID AMBIENT AIR: PPM

WELL DIAMETER: IN

FINAL DEPTH TO WATER: FT

SCREEN LENGTH: FT

PID WELL MOUTH: PPM

WELL INTEGRITY: CAP, CASING, LOCKED, COLLAR — YES NO N/A

DRAWDOWN: FT

DRAWDOWN VOLUME: GAL

PRODUCT THICKNESS: FT

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE: L/MIN

BEGIN PURGING:

END PURGING:

TOTAL VOL. PURGED: GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments
	lab provided			2 VOAs					

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
[ ] PERISTALTIC	[ ] TEFLON OR TEFLON-LINED	[ ] POLYVINYL CHLORIDE	[ ] TEFLON
[ ] SUBMERSIBLE	[x] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] OTHER _____
[ ] OTHER _____	[ ] OTHER _____	[ ] OTHER _____	

PURGE OBSERVATIONS

Tubing Intake @ _____

SIGNATURE:

NOTES

		Preservation	Time Collected
[x]	VOC	HCL	
[ ]			
[ ]			
[ ]			

AMEC E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING VIA BAILER

PROJECT: Former Taylor Instruments 2011 Semi-Annual Sampling Event

DATE: 11/2/11

SITE ID: QAFB01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1525 END 1535

JOB NUMBER: 3031052006.18

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT
- ☐ TOP OF WELL RISER
- ☐ TOP OF PROTECTIVE CASING
- ☐ OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND)	FT	PROTECTIVE CASING / WELL DIFFERENCE	FT				
INITIAL DEPTH TO WATER	FT	WELL DEPTH	FT	PID AMBIENT AIR	PPM	WELL DIAMETER	IN
FINAL DEPTH TO WATER	FT	SCREEN LENGTH	FT	PID WELL MOUTH	PPM		
DRAWDOWN	FT	DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	FT		

WELL INTEGRITY:

	YES	NO	N/A
CAP			
CASING			
LOCKED			
COLLAR			

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE	L/MIN	BEGIN PURGING		END PURGING		TOTAL VOL. PURGED	GAL

(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOLUME PURGED (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DISSOLVED O_2 (mg/L)	TEMPERATURE (°C)	REDOX POTENTIAL (mV)	WATER LEVEL	Comments

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL (if applicable)
☐ PERISTALTIC	☐ TEFLON OR TEFLON LINED	☐ POLYVINYL CHLORIDE	☐ TEFLON
☐ SUBMERSIBLE	☐ HIGH DENSITY POLYETHYLENE	☐ STAINLESS STEEL	☐ OTHER _____
☐ OTHER _____	☐ OTHER _____	☐ OTHER _____	

PURGE OBSERVATIONS

Tubing Intake @ _____

collected from Tops DI water

SIGNATURE: Emily Hoff

NOTES

		Preservation	Time Collected
☒	VOC	HCL	1530
☐			
☐			
☐			

APPENDIX G

WELL CONSTRUCTION INFORMATION

Appendix G
Well Construction Information

2011 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

						Screen Interval		Survey Coordinates			Well Material	Completion		
Well ID	Date Installed	Well Purpose/Type	Well Location	Boring Depth	Well Depth	Top	Bottom	Easting	Northing	Elevation	Riser/Screen	Flush-mount	Vault	Stick-up
BR-01	09/02/97	Monitor	Perimeter	42.2	42.2	NA	NA	750364.06	1150086.89	531.92	Stainless / Open	X		
BR-02	09/02/97	Monitor	Perimeter	44.0	44.0	NA	NA	750541.81	1149964.51	532.39	Stainless / Open	X		
BR-03	09/02/97	Monitor	Perimeter	40.1	40.1	NA	NA	750552.93	1149641.68	536.32	Stainless / Open			X
BR-04	09/03/97	Monitor	South Source	44.2	44.2	NA	NA	750322.96	1149422.13	532.68	Stainless / Open	X		
BR-10	07/28/00	Monitor	South Source	47.0	47.0	NA	NA	750426.90	1149411.76	532.29	Iron / Open	X		
BR-15	07/26/00	Monitor	North Source	72.0	72.0	NA	NA	750293.39	1149980.43	531.69	Iron / Open	X		
OB-04	09/05/97	Monitor	South Source	17.5	17.5	2.5	17.5	750329.65	1149422.19	532.80	PVC	X		
OB-06	07/19/00	Monitor	South Source	17.0	17.0	6.8	16.8	750421.89	1149461.50	532.60	PVC	X		
OB-08	07/28/00	Monitor	North Source	25.5	25.3	15.3	25.1	750279.00	1149957.45	531.64	PVC	X		
TW-04	03/15/96	Monitor	Perimeter	17.5	17.3	12.3	17.3	750552.18	1149648.54	536.34	PVC			X
TW-09	03/30/96	Monitor	Perimeter	16.0	16.0	11.0	16.0	750542.22	1149971.84	532.30	PVC	X		
TW-17	03/13/96	Monitor	Perimeter	15.0	15.0	10.0	15.0	750373.39	1150088.34	531.86	PVC			X
TW-20	03/13/96	Monitor	Perimeter	15.0	15.0	10.0	15.0	750547.88	1150118.75	532.42	PVC			X
W-5	09/15/82	Monitor	Perimeter	24.0	20.5	15.5	20.5	750248.88	1150056.27	531.52	PVC	X		

Prepared by/Date: KJD 12/15/10 KJD
Checked by/Date: CRW 1/18/11 CRW