2016 ANNUAL PROGRESS REPORT AND REMEDIAL PROGRESS EVALUATION

FORMER TAYLOR INSTRUMENTS SITE
95 AMES STREET
ROCHESTER, NEW YORK

PREPARED FOR:

ABB, INC.
1370 BLUE HILLS AVENUE
BLOOMFIELD, CT 06002

PREPARED BY:

AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.
2030 FALLING WATERS ROAD, SUITE 300
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AMEC FOSTER WHEELER PROJECT 3031152028

March 2017

amec
foster
wheeler

March 7, 2017

Mr. Frank Sowers
Environmental Engineer II
NYSDEC
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414-9519

Subject: **2016 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 3031152028

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 2016 Annual Progress Report and Remedial Progress Evaluation. The Periodic Review Report is included as an Appendix.

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

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

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

K. Joe Deatherage
Senior Environmental Engineer

Enclosures

cc: Bernette Schilling, NYSDEC (w/o enclosure [*electronic*])
John Frazer, MCDOH (w/o enclosure)
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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.
Amec Foster Wheeler	Amec Foster Wheeler 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
mV	millivolt
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	Operations, Maintenance, and Monitoring
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCE	tetrachloroethene
QC	quality control
RPD	relative percent difference
Site	former Taylor Instruments Site
TCE	trichloroethene
VFA	volatile fatty acid
VC	vinyl chloride
VOC	volatile organic compound

1.0 INTRODUCTION

This annual progress report summarizes the results from site wide groundwater sampling events conducted in May and October 2016. 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 2016 groundwater sampling events were the sixth year of sampling since Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) 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 Associates, 2000); to demonstrate a downward trend in volatile organic compound (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 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, 2017).

The first semi-annual groundwater sampling event for 2016 was conducted in May and the second in October. A summary of the sampling event results from 2001-2016, including results for the 2010 3DMe® baseline event, are included in this report.

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 Foster Wheeler personnel performed the May and October sampling events to provide an inclusive set of groundwater analytical data for the 2016 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 8260C (Table 1, Appendix C). As approved by NYSDEC in the revised 2011 *Operations, Maintenance, and Monitoring Manual* (MACTEC, 2011), 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. The results for the 2016 sampling events are presented in tables in Appendix C. Additionally, to further assess biological parameters supportive for contaminant degradation, selected samples were also analyzed for sulfate by EPA Method 300, methane/ethane by Method EPA RSK175, and volatile fatty acids (VFA's) by Method AM23G. The methane/ethane and VFA samples were analyzed by Pace Analytical Energy Services, LLC. The results for these parameters are included in the laboratory reports in Appendix D. 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 2016 samples are located in Appendix D. Purge and sample field data are presented in the field data records located in Appendix E.

2.2 SUMMARY OF RESULTS

This section presents the results of the groundwater sampling events conducted during 2016. As detailed below, the results from both the May and October events showed the effects of subsequent enhanced biodegradation from the 3DMe® application. The results summary focuses primarily on the most recent October 2016 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" shown on Figures 2 and 3 (Appendix A), representing overburden monitoring wells and bedrock monitoring wells, respectively. Complete laboratory analytical data reports for the 2016 events are included in Appendix D. Well construction information is provided in Appendix F.

While certain COCs remain above the NYSDEC Class GA Standards, substantial declines of COC concentrations have been observed in all Site monitoring wells. The greatest decrease has been within the two former source areas, as COCs are near their respective NYSDEC Class GA standards in North Source Area monitoring wells OB-08 and BR-15, while COCs in South Source Area monitoring well OB-04 have generally been near or below their respective NYSDEC Class GA standards since 2012, as shown in Figures 2 and 3 (Appendix A).

COCs in three of the eight overburden wells are presently near or below the NYSDEC Class GA standards, including TW-04 along the downgradient eastern property boundary. It is also notable that the total contaminant mass of the overburden wells is presently near an historic low, as shown in Figure 4 (Appendix A)..

As shown in Tables 1 and 2 (Appendix C) in October 2016, PCE was not detected at any location over the NYSDEC Class GA Standard of 5 micrograms per liter (µg/L); TCE was detected above the NYSDEC Class GA Standard of 5 µg/L in the groundwater samples collected from four overburden monitoring wells and five bedrock monitoring wells; cis-1,2-DCE was detected above the NYSDEC Class GA Standard of 5 µg/L in the groundwater samples collected from three overburden monitoring wells and five bedrock monitoring wells; trans-1,2-DCE was detected above the NYSDEC Class GA Standard of 5 µg/L in the groundwater samples collected from one overburden monitoring well and three bedrock monitoring wells; 1,1-DCE was detected above the NYSDEC Class GA Standard of 5 µg/L in the groundwater samples collected from one bedrock monitoring well; and vinyl chloride was detected above the NYSDEC Class GA Standard of 2 µg/L in the groundwater samples collected from five overburden monitoring wells and four bedrock monitoring wells.

Following the expanded accelerated bioremediation application of 3DMe® in the overburden groundwater, total contaminant mass has been reduced from 12.3 micromoles per liter (µmole/L) in May 2010 (prior to injection) to 3.9 µmole/L in October 2016, a 68% reduction from pre-injection values. Looking at specific COCs, the TCE contaminant mass in overburden wells has decreased steadily from 8.8 µmole/L

prior to injection to 1.4 µmole/L in October 2016, demonstrating that the 3DMe® has been effective in reducing site source contamination. Cis-1,2-DCE was 2.4 µmole/L in May 2010 prior to the injection, but has since decreased to 1.1 µmole/L in October 2016. Vinyl chloride was 0.8 µmole/L prior to the injection in May 2010 and was 1.2 µmole/L in October 2016. All other COCs are at minimal concentrations or were not detected. The overburden contaminant mass values are depicted on Figure 4 (Appendix A). The decreases in contaminant mass indicate that the 3DMe® has enhanced contaminant biodegradation.

While substantial decreases in contaminant mass have been noted in the affected overburden groundwater, the corresponding response in the bedrock groundwater has been slower, although evidence of contaminant biodegradation is apparent. Looking at specific COCs, the TCE contaminant mass has decreased from 14.2 µmole/L in the May 2010 pre-injection baseline event to 8.3 µmole/L in October 2016, a 42% decrease from May 2010; the cis-1,2-DCE contaminant mass has increased from 7.5 µmole/L in May 2010 to 22.3 µmole/L in October 2016, likely influenced by the degradation of TCE; and the vinyl chloride contaminant mass has increased from 0.1 µmole/L in May 2010 to 3.6 µmole/L in October 2016, reflecting biodegradation of TCE and cis-1,2-DCE. All other COCs have had lower concentrations or were not detected. Although historically bedrock concentrations have varied considerably, the overall decreases in TCE contaminant mass in correlation with overall more recent increases in TCE daughter products (cis-1,2-DCE and vinyl chloride) indicate that the bedrock groundwater has been affected by the enhanced contaminant biodegradation in the overburden groundwater. Specific evidence of this is in former North TCE Source Area bedrock well BR-15 where following the 2010 injection COCs have decreased to near or below their NYSDEC Class GA standards.

Six years after completion of the expanded accelerated bioremediation application using 3DMe® in 2010 as the final required active Site remediation, the overburden groundwater contaminant plume in the southern portion of the Site has been stable for the past few years. As shown in Table 3 (Appendix C), downgradient perimeter monitoring well TW-04 had COCs below their respective NYSDEC Class GA standards during both 2016 sampling events. COCs in TW-04 have been near or below their NYSDEC Class GA standards since May 2012, with only very low concentrations of cis-1,2-DCE having been detected during this period. We note that since May 2012 cis-1,2-DCE has statistically averaged below its NYSDEC Class GA standard in TW-04 and has been below its NYSDEC Class GA standard in upgradient source area well OB-04. Therefore, the four year trend of cis-1,2-DCE statistically averaging below its NYSDEC Class GA standard in downgradient perimeter well TW-04 is likely to continue.

Source area monitoring well OB-04 also has had COC's generally near or below their respective NYSDEC Class GA standards since May 2012, with only low concentrations of vinyl chloride having been detected above its NYSDEC Class GA standard during that period. We note that vinyl chloride has never been detected in perimeter monitoring well TW-04 since its initial sampling event in 1997, despite vinyl chloride in OB-04 having been orders of magnitude higher historically, therefore it is unlikely that the remaining low concentrations in OB-04 would impact downgradient perimeter well TW-04.

The overburden groundwater contaminant plume in the northern portion of the Site is also demonstrating evidence of plume stability. Source area monitoring well OB-08 has minimal VOC concentrations, with only a very low concentration of vinyl chloride presently above its NYSDEC Class GA Standard, indicating the source of the remaining mass in the downgradient contaminant plume has been remediated. It's also notable that downgradient perimeter wells TW-09 and TW-20 have seen recent declines in their contaminant mass.

The October 2016 data indicate that low level to minimal volatile fatty acids (VFAs) were detected in all treatment area wells sampled for VFAs (OB-04, OB-06, TW-04, OB-08, W-5, and TW-17), indicating that the enhanced electron donor appears mostly expended. However, enhanced reducing conditions continue to be present based on the following:

- The average pH in the Site overburden wells has been reduced from 7.4 in the 2010 baseline sampling event to a neutral 6.9 in October 2016.
- The average oxygen reduction potential in the Site overburden wells has been reduced from 45 millivolts (mV) (2010 baseline) to -89 mV in October 2016.
- The average dissolved oxygen in the Site overburden wells has been reduced from 1.54 milligrams per liter (mg/L) (2010 baseline) to 0.93 mg/L in October 2016.
- Methane, an indicator of biological activity, is also very robust in all wells for which it was sampled in October 2016, i.e., Site overburden wells TW-04, OB-06, TW-17, and W-5, ranging from 2,300 µg/L to 20,000 µg/L.

Based on the demonstrated plume stability, Amec Foster Wheeler recommends modifying the Site sampling schedule from semi-annual to annual beginning in 2017. We note that semi-annual groundwater monitoring has been performed since 2004, prior to which quarterly groundwater monitoring was performed, and therefore sufficient data has been obtained to identify Site contaminant trends and demonstrate the aforementioned indicators of plume stability. We also note that the revised *Operations, Maintenance, and Monitoring* (OM&M) *Manual* (MACTEC, 2011) details future Site semi-annual groundwater monitoring activities "unless a reduced monitoring program is agreed to by NYSDEC."

2.3 POTENTIOMETRIC SURFACE

Associated with each monitoring event, a potentiometric surface map was generated to depict groundwater elevations for the overburden groundwater. AutoCAD 2015 was used to plot the potentiometric surface maps in Figures 6 and 8 (Appendix A). The program mathematically calculates contours based upon groundwater elevation measurements collected in the field.

The May and October 2016 overburden potentiometric maps (Figures 6 and 8 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 comparable to past groundwater mapping indicating groundwater flow is generally to the northeast.

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 perimeters also support the interpretation that bedrock groundwater flow beneath the two former source areas is generally towards the north/northeast. Bedrock water level elevations are presented on Figures 7 and 9 in Appendix A.

3.0 ANALYTICAL PROGRAM

Overall data quality is assessed by grouping particular data evaluation findings and reviewing them in terms of accuracy, precision, 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 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 [Matrix Spike (MS) and Matrix Spike Duplicate (MSD)]. Surrogate and MS/MSD recoveries evaluate accuracy and identify interferences from the sample matrix and were acceptable for VOC analysis for these sampling events.

3.2 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, an MS and MSD were taken for each set of 20 samples with a net result of one MS/MSD analysis for the May 2016 sampling event and one MS/MSD analysis for the October 2016 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-15 – May 2016

Analyte	MS Value (µg/L)	Recovery (%)	MSD Value (µg/L)	MSD Recovery (%)	RPD	Control Limits (%)	RPD Limit
1,1-Dichloroethene	26.67	133	25.70	129	4	54-150	17
cis-1,2-DCE	19.87	99	19.22	96	3	68-131	17
Tetrachloroethene	20.64	103	20.24	101	2	57-138	16
trans-1,2-DCE	20.29	101	19.88	99	2	59-143	16
Trichloroethene	20.72	102	20.27	100	2	63-135	17
Vinyl Chloride	23.24	109	22.15	104	5	57-150	17

BR-15 – October 2016

Analyte	MS Value (µg/L)	Recovery (%)	MSD Value (µg/L)	MSD Recovery (%)	RPD	Control Limits (%)	RPD Limit
1,1-Dichloroethene	56.21	112	47.68	95	16	54-150	17
cis-1,2-DCE	53.49	105	45.86	90	15	68-131	17
Tetrachloroethene	54.33	109	49.72	99	9	57-138	16
trans-1,2-DCE	56.84	114	42.14	84	30	59-143	16
Trichloroethene	53.44	107	50.58	101	5	63-135	17
Vinyl Chloride	53.41	101	53.23	100	0	57-150	17

The RPDs did not exceed the National Functional Data Validation Guideline of 30 for water samples, and 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 2016 and one duplicate sample for the October 2016 sampling event. Field duplicate precision is presented in the following tables.

W-5 – May 2016

Sample ID	Analyte	Practical Quantitation Limit	Sample Result (µg/L)	Flag	Duplicate Result (µg/L)	Flag	RPD
W-5	cis-1,2-Dichloroethene	1	41.6		42.9		3.1
	trans-1,2-Dichloroethene	1	7.24		7.55		4.2
	Trichloroethene	1	85.6		85.6		0
	Vinyl Chloride	1	26.9		27.4		1.8

W-5 – October 2016

Sample ID	Analyte	Practical Quantitation Limit	Sample Result (µg/L)	Flag	Duplicate Result (µg/L)	Flag	RPD
W-5	cis-1,2-Dichloroethene	1	56.9		61.6		7.9
	trans-1,2-Dichloroethene	1	8.27		9.60		14.9
	Trichloroethene	1	104		109		4.7
	Vinyl Chloride	1	27.3		27.8		1.8

Field duplicate precision was evaluated between the two data sets for detected compounds. The RPDs did not exceed the National Functional Data Validation Guideline of 30 for water samples.

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 2016 event and one field blank for the October 2016 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 2016 or October 2016.

One trip blank was analyzed during the May 2016 and October 2016 sampling events as part of the VOC laboratory QC program. No target VOCs were detected above the reporting limit in 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 2016 event and the October 2016 event. No target VOCs were detected above the reporting limit in either rinsate blank.

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 is considered comparable to previous and future data sets.

4.0 CONCLUSIONS AND RECOMMENDATIONS

A comparison of analytical data from the sampling events that occurred from 2001-2016 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.

- While certain COCs remain above the NYSDEC Class GA Standards, substantial declines of COC concentrations have been observed in all Site monitoring wells. The greatest decrease has been within the two former source areas as COCs are near their respective NYSDEC Class GA Standards in North Source Area monitoring wells OB-08 and BR-15, while COCs in South Source Area monitoring well OB-08 have generally been near or below their respective NYSDEC Class GA standards since 2012.

- COCs in three of the eight overburden wells are presently near or below the NYSDEC Class GA standards, including TW-04 along the downgradient eastern property boundary.

- Since the 3DMe® injection, the total overburden groundwater contaminant mass has been reduced from 12.3 µmole/L in May 2010 to 3.9 µmole/L in October 2016, a 68% decrease to a near historic low mass. The substantial decrease in contaminant mass indicates that the 3DMe® has enhanced contaminant biodegradation in the overburden monitoring wells.

- Bedrock groundwater has now been affected by the enhanced contaminant biodegradation in the overlying overburden groundwater as indicated by the overall decreases in TCE contaminant mass in correlation with overall increases in TCE daughter products.

- In the southern portion of the Site the overburden groundwater contaminant plume has been stable for the past few years, as source area monitoring well OB-04 and downgradient perimeter monitoring well TW-04 generally have had COC's near or below their respective NYSDEC Class GA Standards since May 2012.

- In the northern portion of the Site the overburden groundwater contaminant plume is also demonstrating evidence of plume stability, as source area monitoring well OB-08 has minimal VOC concentrations, while downgradient perimeter wells TW-09 and TW-20 have seen recent declines in their contaminant mass.

- Based on the continued demonstrated plume stability, Amec Foster Wheeler recommends modifying the Site sampling schedule from semi-annual to annual beginning in 2017.

- Pending NYDEC's responses to our request to switch to annual sampling, groundwater monitoring events will continue to be conducted on the remaining monitoring wells. Groundwater samples will be analyzed for the six primary COCs remaining at the Site: PCE; TCE; cis-1,2-DCE; trans-1,2-DCE; 1,1-DCE; and vinyl chloride. These VOCs will be analyzed using EPA Method 8260C. Additionally, as detailed in the revised *OM&M Manual* (MACTEC, 2011), the groundwater samples will be analyzed for the full suite of 8260C constituents every five years and prior to ending monitoring at any specified well.

- Results for future post-closure monitoring events will be provided to NYSDEC in subsequent annual reports.

- As requested by NYSDEC (NYSDEC, 2017), the Site Periodic Review Report is provided in Appendix B of this report.

5.0 REFERENCES

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

MACTEC, 2011. *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 (March).

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

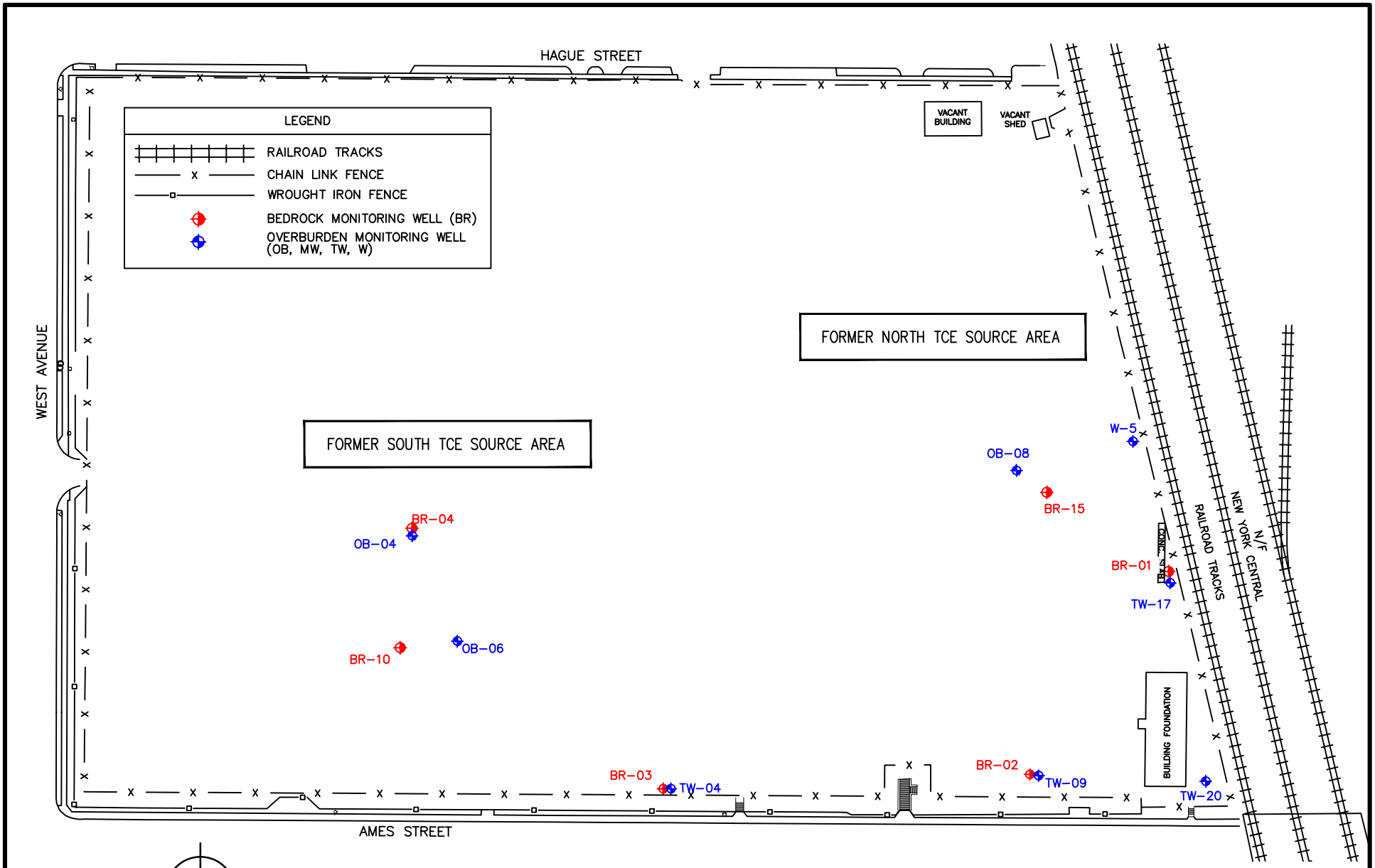
NYSDEC, 2005. Letter to Ms. Jean H. McCreary with Nixon Peabody LLC (September 2).

NYSDEC, 2017. *Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal.* Prepared by the New York State Department of Environmental Conservation (January 6).

APPENDIX A

FIGURES

Plotted By: Troxel, Paul Sheet Set: N/A Layout: Well locations January 19, 2017 02:00:35pm
P:\CADD\Projects\3031\3031152028 ABB Rochester NY\2016 Annual Report\Well Locations.dwg



CLIENT: ABB	DESIGN BY: N/A	PROJECT: ANNUAL REPORT 2016 FORMER TAYLOR INSRUMENTS SITE ROCHESTER, NEW YORK	PROJECT NO.: 3031152028.02
	DRAWN BY: M. BISHOP		REVISION NO. N/A
	CHECKED BY: N. GARLAND	TITLE: WELL LOCATIONS	DATE: 01/19/2017
	PM: R. RYAN		FIGURE NO. 1
	SCALE: AS NOTED		

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HAGUE STREET

WEST AVENUE

AMES STREET

VACANT BUILDING

VACANT SHED

CONC. SLAB

BUILDING FOUNDATION

NEW YORK CENTRAL N/F RAILROAD TRACKS

N

LEGEND

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

DCE	DICHLOROETHENE
PCE	TETRACHLOROETHENE (PERCHLOROETHENE)
TCE	TRICHLOROETHENE
U	NON DETECT
µg/L	MICROGRAMS PER LITER

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	2.1 — DETECTED BELOW NYSDEC CLASS GA STANDARD
trans-1,2-DCE	5	8.07 — DETECTED ABOVE NYSDEC CLASS GA STANDARD
1,1-DCE	5	1 U
Vinyl Chloride	2	47.8 — DETECTED ABOVE NYSDEC CLASS GA STANDARD

NOTES:

1. HISTORICAL HIGH OBTAINED FROM DATA FROM THE TIME FRAMES OF ACTIVE REMEDIATION OCT/NOV 2000 TO PRESENT.
2. BASELINE IS THE MAY 2010 EVENT CONDUCTED PRIOR TO THE EXPANDED ACCELERATED BIOREMEDIATION APPLICATION.

Site ID: W-5				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	2.41	1 U	1 U	1 U
TCE	1,435	601	85.6	104
cis-1,2-DCE	340	164	41.6	56.9
trans-1,2-DCE	13.1	2.08	7.24	8.27
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	39.5	5.04	26.9	27.3

Site ID: OB-04				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	19.9	1 U	1 U	1 U
TCE	71,500	5.76	1.84	1.97
cis-1,2-DCE	56,000	5.69	1 U	2.52
trans-1,2-DCE	170	1.77	1 U	1.18
1,1-DCE	108	1 U	1 U	1 U
Vinyl Chloride	145	9.74	8.03	17.6

Site ID: OB-08				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	13.1	1 U	1 U	I U
TCE	40,000	1 U	1 U	1 U
cis-1,2-DCE	3,750	30.5	10.7	1 U
trans-1,2-DCE	32	3.44	13.4	3.72
1,1-DCE	12.9	1 U	1 U	1 U
Vinyl Chloride	249	36	67.5	3.29

Site ID: OB-06				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	1 U	1 U	1 U	1 U
TCE	5,600	105	40.4	50.8
cis-1,2-DCE	240	10.5	10.6	19.3
trans-1,2-DCE	9 J	1 U	1.3	1.7
1,1-DCE	1.6	1 U	1.6	1.57
Vinyl Chloride	20.6	1 U	8.5	20.6

Site ID: TW-17				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	1 U	1 U	1 U	1 U
TCE	1,000	316	13.5	1.07
cis-1,2-DCE	556	10.6	170	24.2
trans-1,2-DCE	5.92	1 U	2.95	1 U
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	130	1 U	84.4	4.26

Site ID: TW-04				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	1 U	1 U	1 U	1 U
TCE	51.1	5.32	1 U	1 U
cis-1,2-DCE	79	1 U	1 U	2.67
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-16	Oct-16
PCE	1 U	1 U	1 U	1 U
TCE	230	56.7	10.8	5.31
cis-1,2-DCE	38.9	12.8	16.8	3.2
trans-1,2-DCE	34.6	14.3	6.85	1.07
1,1-DCE	1 U	1 U	1 U	1 U
Vinyl Chloride	21	1 U	6.9	1 U

Site ID: TW-20				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	1 U	1 U	1 U	1 U
TCE	107	65.9	26.3	18.6
cis-1,2-DCE	8.3	2.34	1 U	1 U
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

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

0' 40' 80' 120'

1" = 80'

CLIENT: ABB	DESIGN BY: N/A	PROJECT: ANNUAL REPORT 2016 FORMER TAYLOR INSRUMENTS SITE ROCHESTER, NEW YORK	PROJECT NO.: 3031152028.02
Amec Foster Wheeler Environment & Infrastructure 2030 Falling Waters Road, Suite 300 Knoxville, TN 37922 Phone (865) 671-6774 Fax (865) 671-6254	DRAWN BY: M. BISHOP		REVISION NO. N/A
amec foster wheeler	CHECKED BY: N. GARLAND	TITLE: VOCs IN OVERBURDEN MONITORING WELLS	DATE: 02/27/2017
	PM: R. RYAN		FIGURE NO. 2
	SCALE: AS NOTED		

HAGUE STREET

WEST AVENUE

AMES STREET

VACANT BUILDING

VACANT SHED

BUILDING FOUNDATION

RAILROAD TRACKS

N/F NEW YORK CENTRAL

CONC. SLAB

N

LEGEND

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

DCE	DICHLOROETHENE
PCE	TETRACHLOROETHENE (PERCHLOROETHENE)
TCE	TRICHLOROETHENE
U	NON DETECT
µg/L	MICROGRAMS PER LITER

Site ID:OB-XX	NYSDEC CLASS GA groundwater standard	(units:ug/L)
Analyte		MAY 08
PCE	5	1 U
TCE	5	1 U
cis-1,2-DCE	5	2.1
trans-1,2-DCE	5	8.07
1,1-DCE	5	1 U
Vinyl Chloride	2	47.8

SITE ID — DATE SAMPLED — NOT DETECTED AT THE INDICATED QUANTITATION LIMIT — DETECTED BELOW NYSDEC CLASS GA STANDARD — DETECTED ABOVE NYSDEC CLASS GA STANDARD

NOTES:

1. HISTORICAL HIGH OBTAINED FROM DATA FROM THE TIME FRAMES OF ACTIVE REMEDIATION OCT/NOV 2000 TO PRESENT.
2. BASELINE IS THE MAY 2010 EVENT CONDUCTED PRIOR TO THE EXPANDED ACCELERATED BIOREMEDIATION APPLICATION.

Site ID: BR-04				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	1.8	1 U	1 U	1 U
TCE	10,000	325	354	441
cis-1,2-DCE	6,410	321	831	972
trans-1,2-DCE	147	11.7	51	81.9
1,1-DCE	21.3	1.37	6.63	9.15
Vinyl Chloride	77	1 U	48.5	62

Site ID: BR-15				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	1 U	1 U	1 U	1 U
TCE	6,590	167	1 U	1 U
cis-1,2-DCE	1,390	123	1 U	1 U
trans-1,2-DCE	43.6	2.12	1 U	1 U
1,1-DCE	12.8	1 U	1 U	1 U
Vinyl Chloride	199	3.11	1.42	3

Site ID: BR-01				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	1 U	1 U	1 U	1 U
TCE	551	9.23	13	10.9
cis-1,2-DCE	1,570	12.8	861	787
trans-1,2-DCE	61.4	2.02	36.8	30
1,1-DCE	7.70	1 U	1 U	2.5
Vinyl Chloride	406	1 U	302	158

Site ID: BR-10				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	2.94	1.72	1 U	1.19
TCE	8,700	277	233	154
cis-1,2-DCE	1,700	77.3	257	345
trans-1,2-DCE	82.8	14	43.3	50.1
1,1-DCE	4.7	1 U	1 U	1.5
Vinyl Chloride	16.1	1 U	1 U	2.11

Site ID: BR-03				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	1 U	1 U	1 U	1 U
TCE	1,150	270	225	464
cis-1,2-DCE	329	3.15	79.1	27.1
trans-1,2-DCE	6.71	1 U	1.19	1.32
1,1-DCE	3.1	1 U	1.58	2.17
Vinyl Chloride	1 U	1 U	1 U	1 U

Site ID: BR-02				(units: µg/L)
Analyte	Historical High	Baseline	May-16	Oct-16
PCE	1.32	1 U	1 U	1 U
TCE	25,200	821	196	14.9
cis-1,2-DCE	19,100	186	335	30.3
trans-1,2-DCE	238	21.9	15.3	1.65
1,1-DCE	156	1.76	2.59	1 U
Vinyl Chloride	103	2.25	12.6	1 U

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' 40' 80' 120'

1" = 80'

CLIENT: ABB		DESIGN BY: N/A	PROJECT: ANNUAL REPORT 2016 FORMER TAYLOR INSRUMENTS SITE ROCHESTER, NEW YORK
		DRAWN BY: M. BISHOP	
		CHECKED BY: N. GARLAND	TITLE: VOCs IN BEDROCK MONITORING WELLS
		PM: R. RYAN	
		SCALE: AS NOTED	

PROJECT NO.: 3031152028.02
REVISION NO.: N/A
DATE: 02/27/2017
FIGURE NO.: 3

Amec Foster Wheeler Environment & Infrastructure
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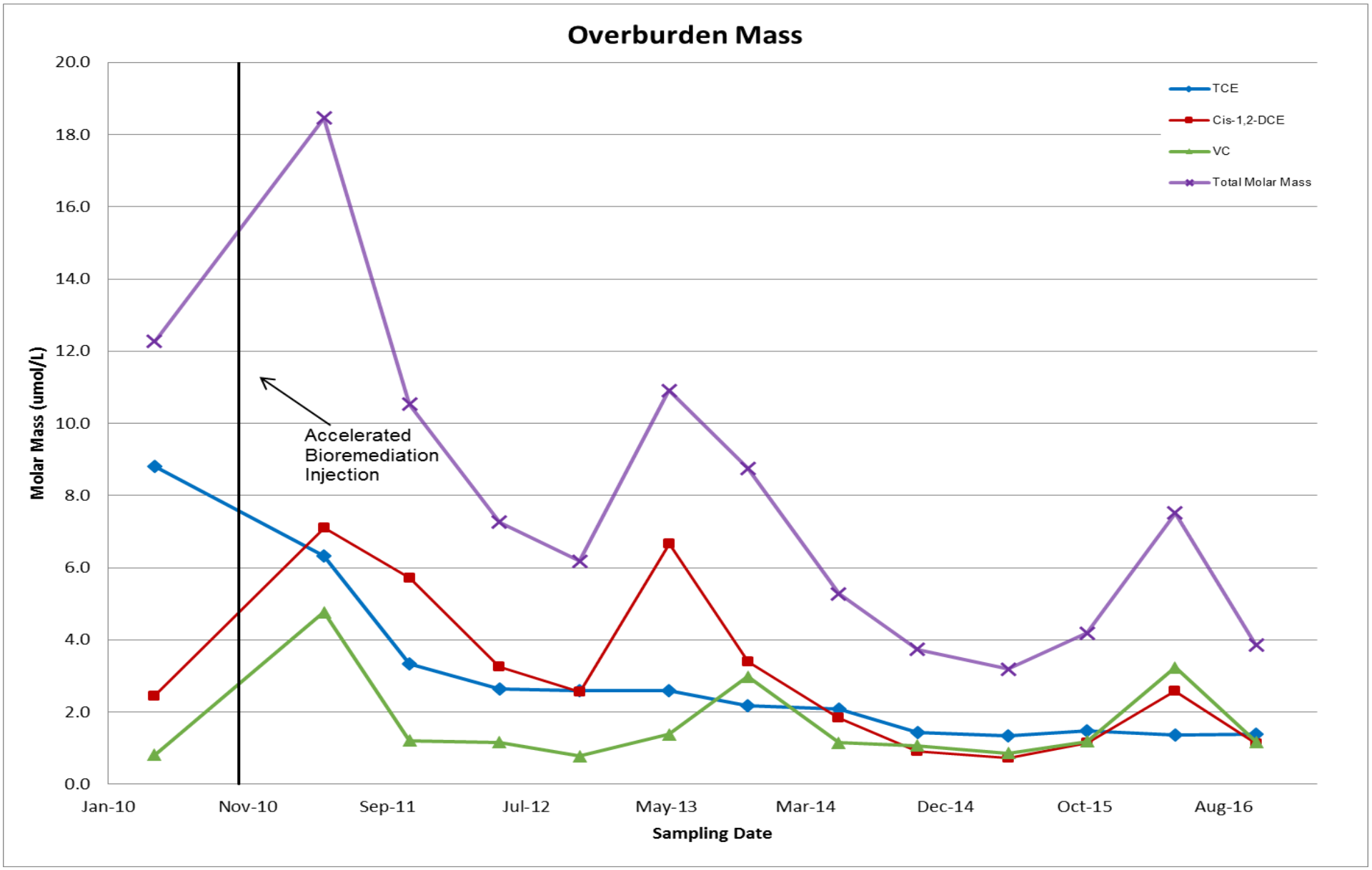

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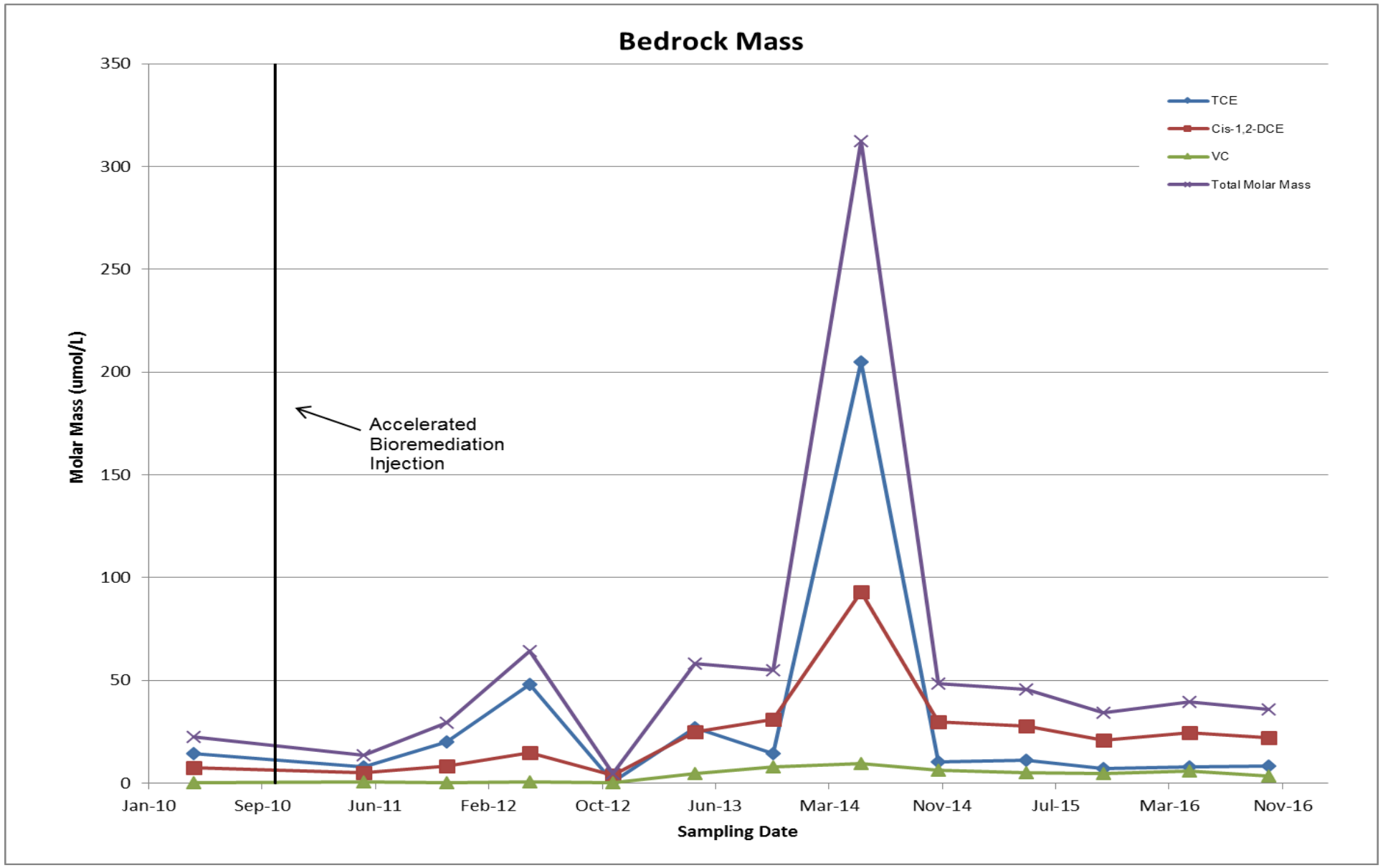
Prepared by/Date: NG 11/18/16

Checked by/Date: KJD 11/18/16

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



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Prepared by/Date: NG 11/18/16

Checked by/Date: KJD 11/18/16

FIGURE 5: BEDROCK CONTAMINANT MASS GRAPH
FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

Plotted By: Troxel, Paul Sheet Set: N/A Layout: 01 January 19, 2017 02:01:54pm
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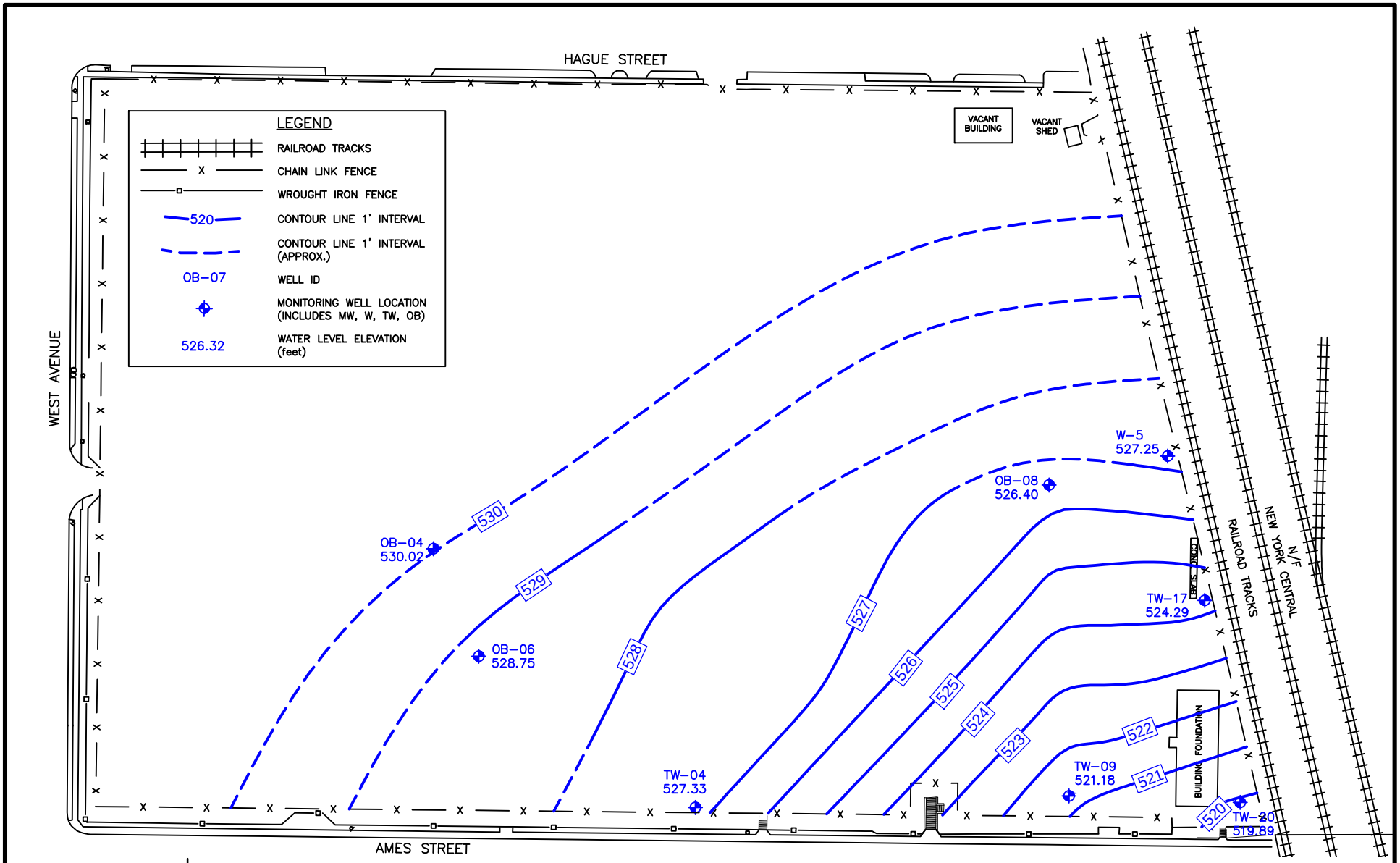

CLIENT: ABB	DESIGN BY: N/A	PROJECT: ANNUAL REPORT 2016 FORMER TAYLOR INSTRUMENTS SITE ROCHESTER, NEW YORK	PROJECT NO.: 3031152028.02
	DRAWN BY: APT		REVISION NO. N/A
	CHECKED BY: J. DEATHERAGE	TITLE: OVERBURDEN POTENTIOMETRIC SURFACE MAP MAY 2016 SAMPLING EVENT	DATE: 07-19-2017
	PM: R. RYAN		FIGURE NO. 6
	SCALE: AS NOTED		

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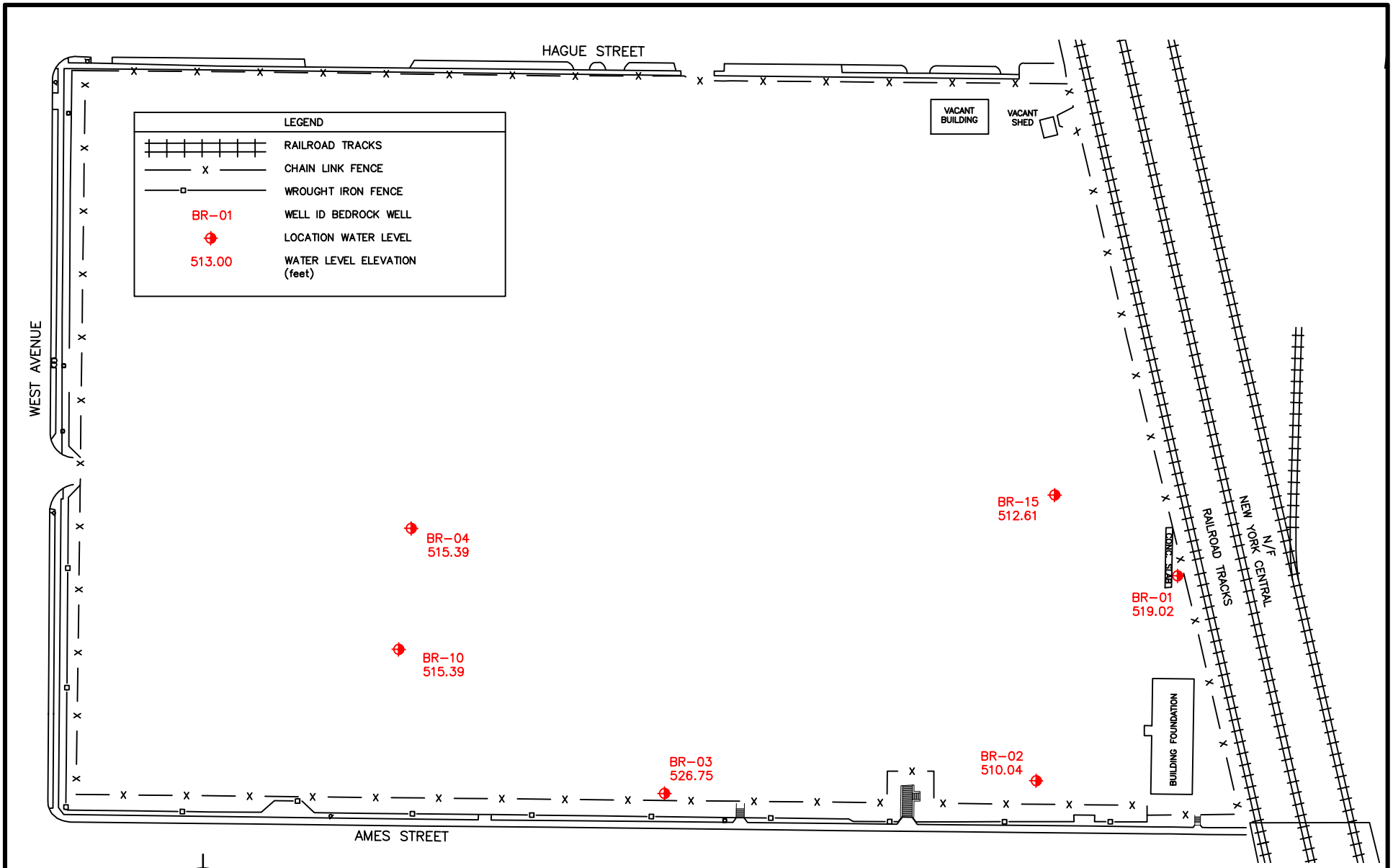

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	DRAWN BY: APT		REVISION NO. N/A
	CHECKED BY: J. DEATHERAGE	TITLE: BEDROCK GROUNDWATER ELEVATIONS MAY 2016 SAMPLING EVENT	DATE: 07-19-2017
	PM: R. RYAN		FIGURE NO. 7
	SCALE: AS NOTED		

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Plotted By: Troxel, Paul Sheet Set: N/A Layout: Overburden potentiometric surface map october 2015 sampling even January 19, 2017 02:02:37pm
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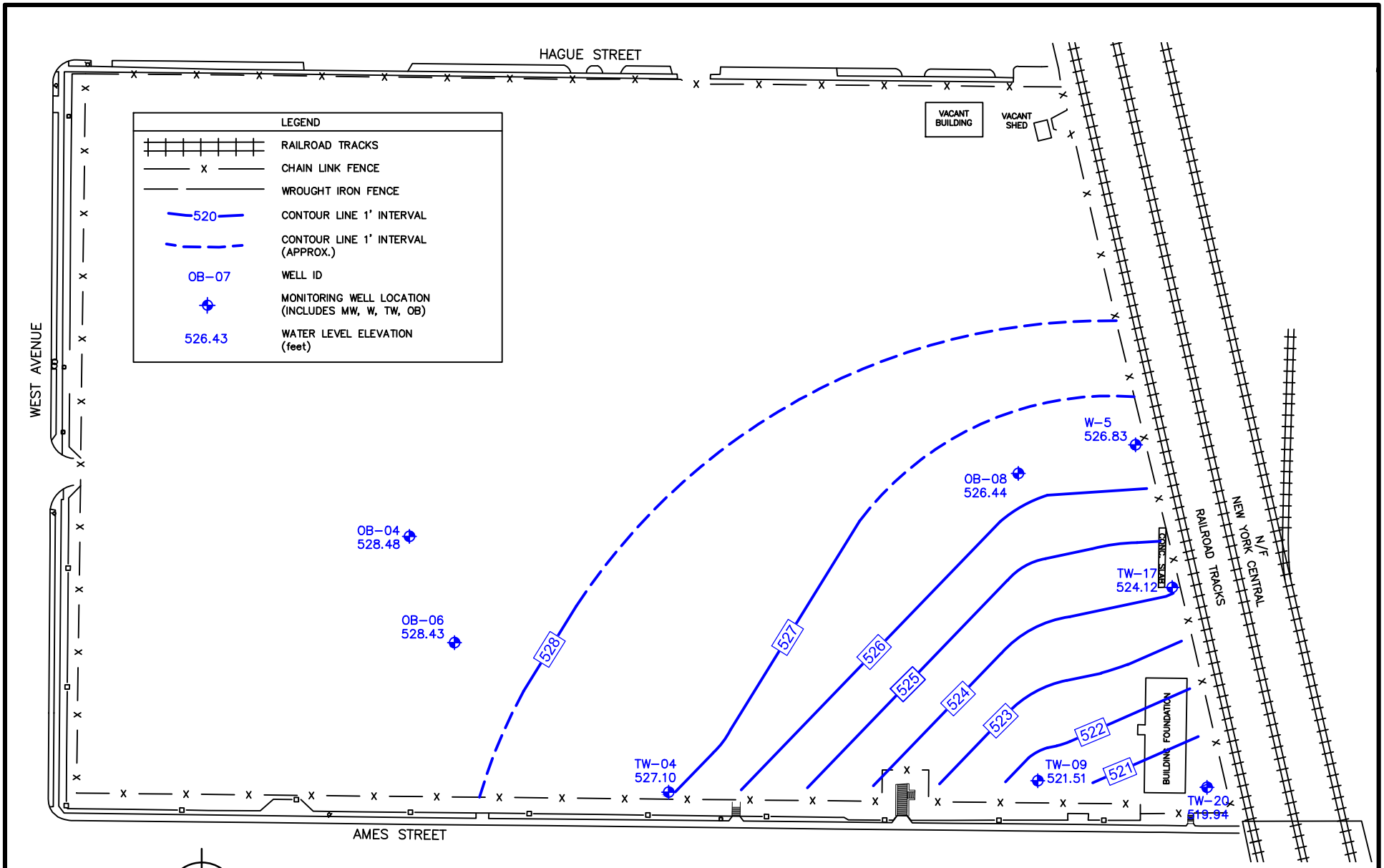

CLIENT: ABB		DESIGN BY: N/A	PROJECT: ANNUAL REPORT 2016 FORMER TAYLOR INSRUMENTS SITE ROCHESTER, NEW YORK	PROJECT NO.: 3031152028.02
		DRAWN BY: M. BISHOP		REVISION NO. N/A
		CHECKED BY: N. GARLAND	TITLE: OVERBURDEN POTENTIOMETRIC SURFACE MAP OCTOBER 2016 SAMPLING EVENT	DATE: 01/19/2017
		PM: R. RYAN		FIGURE NO. 8
		SCALE: AS NOTED		

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Plotted By: Troxel, Paul Sheet Set: N/A Layout: Bedrock groundwater elevations october 2015 sampling event January 19, 2017
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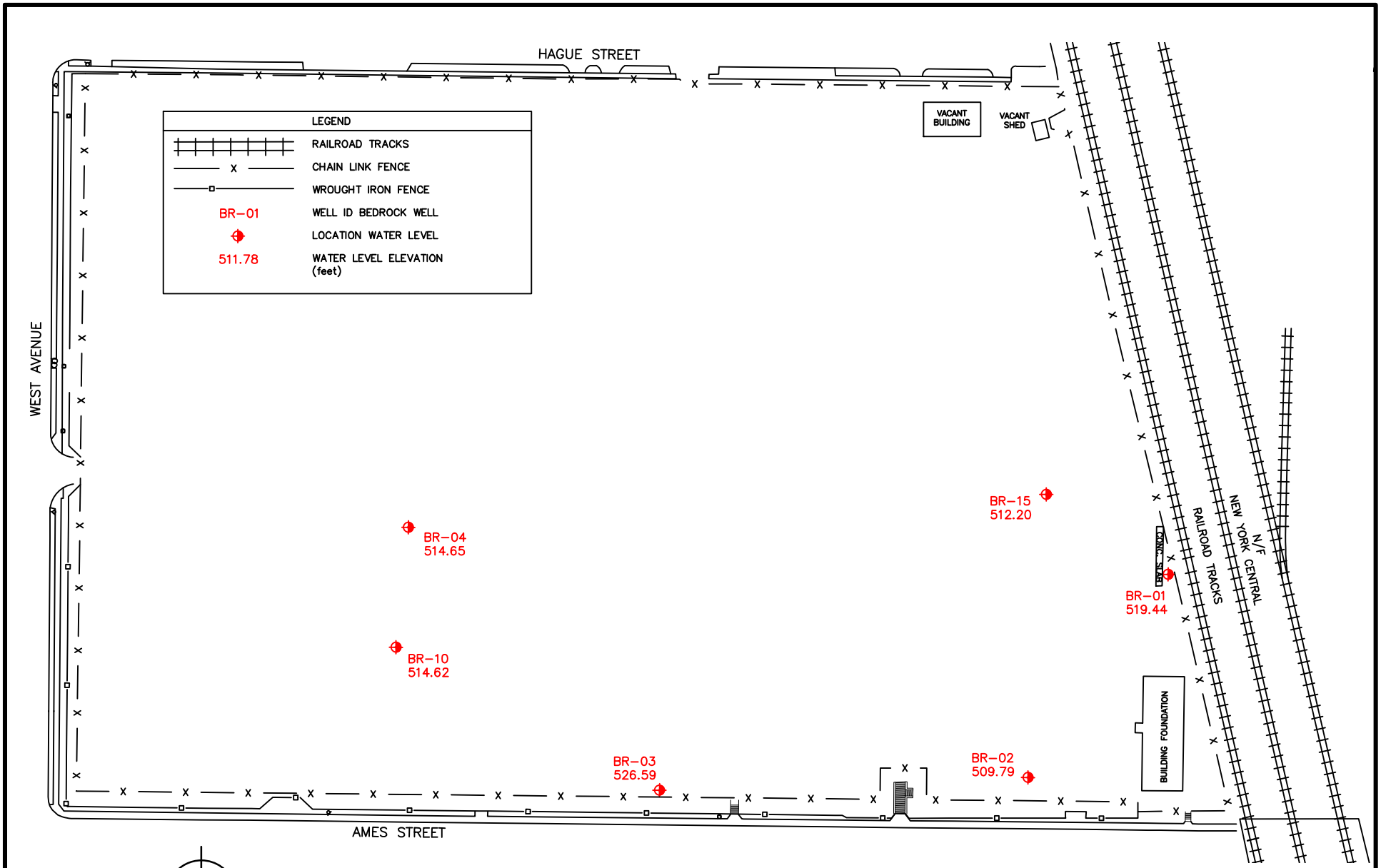

CLIENT: ABB	DESIGN BY: N/A	PROJECT: ANNUAL REPORT 2016 FORMER TAYLOR INSRUMENTS SITE ROCHESTER, NEW YORK	PROJECT NO.: 3031152028.02
	DRAWN BY: M. BISHOP		REVISION NO. N/A
	CHECKED BY: N. GARLAND	TITLE: BEDROCK GROUNDWATER ELEVATIONS OCTOBER 2016 SAMPLING EVENT	DATE: 01/19/2017
	PM: R. RYAN		FIGURE NO. 9
	SCALE: AS NOTED		

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APPENDIX B

PERIODIC REVIEW REPORT

APPENDIX B
PERIODIC REVIEW REPORT

Introduction

This Periodic Review Report (PRR) was prepared to fulfill the requirements of the New York State Department of Environmental Conservation's (NYSDEC) request for a Site Management PRR as requested in a letter dated January 6, 2017 (NYSDEC, 2017).

Executive Summary

The Site was the location of the former Taylor Instruments Facility that was operated from 1904 to 1993 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 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 concluding that the System had reached asymptotic contaminant removal rates, in July 2006 Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) (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 HRC Advanced® was effective in reducing TCE contamination in the overburden groundwater within the North and South TCE Source Areas.

Following NYSDEC's 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, most monitoring wells were abandoned, 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 in remaining 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) until groundwater concentrations of the COCs are at or below NYSDEC Class GA Standards. Figure 1 (Appendix A of the Annual Report [Amec Foster Wheeler, 2016]) depicts the remaining 14 monitoring wells and site boundaries. 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, following a sub-slab vapor investigation, ABB installed a sub-slab depressurization (SSD) system as a precautionary measure to mitigate sub-slab vapor at the 80 Ames residence across from the Site.

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 (NYSDEC, 2011a).

Overburden and bedrock monitoring wells located on the Site have been sampled regularly from 2001 to 2016. Analytical data from the most recent October 2016 groundwater sampling event indicates that while certain COCs remain above the NYSDEC Class GA standards, overall substantial declines of COC concentrations have been observed in all Site monitoring wells. In the southern portion of the Site the overburden groundwater plume is stable based on the groundwater monitoring results from the past few years at south source area monitoring well OB-04, downgradient plume well OB-06, and downgradient perimeter monitoring well TW-04. In the northern portion of the Site the overburden groundwater contaminant plume is also demonstrating evidence of plume stability based on recent groundwater monitoring results at north source area monitoring well OB-08 and downgradient perimeter monitoring wells TW-09 and TW-20.

The October 2016 data indicate that low level to minimal volatile fatty acids (VFAs) were detected in all treatment area wells sampled for VFAs (OB-04, OB-06, TW-04, OB-08, W-5, and TW-17),

indicating that the enhanced electron donor appears mostly expended. However, enhanced reducing conditions continue to be present based on the following:

- The average pH in the Site overburden wells has been reduced from 7.4 in the 2010 baseline sampling event to a neutral 6.9 in October 2016.
- The average oxygen reduction potential in the Site overburden wells has been reduced from 45 millivolts (mV) (2010 baseline) to -89 mV in October 2016.
- The average dissolved oxygen in the Site overburden wells has been reduced from 1.54 milligrams per liter (mg/L) (2010 baseline) to 0.93 mg/L in October 2016.
- Methane, an indicator of biological activity, is also very robust in all wells for which it was sampled in October 2016, i.e., Site overburden wells TW-04, OB-06, TW-17, and W-5, ranging from 2,300 micrograms per liter (µg/L) to 20,000 µg/L.

During the past reporting period, no areas of noncompliance were noted. Additionally, no changes to the *Soil Management Plan* (MACTEC, 2005), the revised *Operations, Maintenance, and Monitoring* (OM&M) *Manual* (MACTEC, 2011), or frequency of 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 1 (Appendix A of the Annual Report [Amec Foster Wheeler, 2016]) depicts the current Site layout.

On June 8, 2015 a utility easement agreement was executed with Rochester Gas & Electric for a 75-foot easement on the north end of the Site. The easement as depicted in the easement agreement was provided in the 2015 PRR (Amec Foster Wheeler, 2016).

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 overburden 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 degradation 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: tetrachloroethene; 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 by Environmental Protection Agency (EPA) Method 8260C. Additionally, the groundwater samples are tested for the full suite of 8260C 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 *2016 Annual Progress Report and Remedial Progress Evaluation* (Amec Foster Wheeler, 2016).

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, 2011). Certification of the IC/ECs is provided in the NYSDEC-approved certification form (Attachment A).

Monitoring Plan Compliance Report

The scope of the May and October 2016 semi-annual monitoring events, as well as future post-closure monitoring events, is provided in the revised OM&M Manual (MACTEC, 2011). A summary of recent monitoring, comparisons with remedial objectives, and conclusions and recommendations are provided in the *2016 Annual Progress Report and Remedial Progress*

Evaluation (Amec Foster Wheeler, 2016). Amec Foster Wheeler has not identified deficiencies with the monitoring plan.

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, 2011), which governs OM&M activities beginning in 2011, was approved by NYSDEC on March 3, 2011 (NYSDEC, 2011b). The components of the revised OM&M Manual include Site groundwater monitoring, SSD system O&M, IC/ECs, and reporting and certification requirements.

O&M activities completed during the 2016 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 2016 Annual Progress Report (Amec Foster Wheeler, 2016) to NYSDEC. Amec Foster Wheeler has not identified deficiencies with the revised OM&M Manual (MACTEC, 2011). 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 25, 2016 by the installation contractor, Mitigation Tech (National Environmental Health Association National Radon Proficiency Program ID certification #100722). The inspection report is included as Attachment B.

Overall PRR Conclusions and Recommendations

Compliance with the revised Site O&M Manual (MACTEC, 2011) including performance and effectiveness of the Site remedy is detailed in the 2016 Annual Progress Report (Amec Foster Wheeler, 2016). As indicated in that report, a comparison of analytical data from the 37 sampling events that occurred in 2001-2016 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.

- While certain COCs remain above the NYSDEC Class GA Standards, substantial declines of COC concentrations have been observed in all Site monitoring wells. The greatest decrease has been within the two former source areas as COCs are near their respective NYSDEC Class GA Standards in North Source Area monitoring wells OB-08 and BR-15, while COCs in South Source Area monitoring well OB-08 have generally been near or below their respective NYSDEC Class GA standards since 2012.

- COCs in three of the eight overburden wells are presently near or below the NYSDEC Class GA standards, including TW-04 along the downgradient eastern property boundary.

- Since the 3DMe® injection, the total overburden groundwater contaminant mass has been reduced from 12.3 µmole/L in May 2010 to 3.9 µmole/L in October 2016, a 68% decrease to a near historic low mass. The substantial decrease in contaminant mass indicates that the 3DMe® has enhanced contaminant biodegradation in the overburden monitoring wells.

- Bedrock groundwater has now been affected by the enhanced contaminant biodegradation in the overlying overburden groundwater as indicated by the overall decreases in TCE contaminant mass in correlation with overall increases in TCE daughter products.

- In the southern portion of the Site the overburden groundwater contaminant plume has been stable for the past few years, as source area monitoring well OB-04 and downgradient perimeter monitoring well TW-04 generally have had COCs near or below their respective NYSDEC Class GA Standards since May 2012.

- In the northern portion of the Site the overburden groundwater contaminant plume is also demonstrating evidence of plume stability, as source area monitoring well OB-08 has minimal VOC concentrations, while downgradient perimeter wells TW-09 and TW-20 have seen recent declines in their contaminant mass.

- Based on the continued demonstrated plume stability, Amec Foster Wheeler recommends modifying the Site sampling schedule from semi-annual to annual beginning in 2017.

- Pending NYDEC's response to our request to switch to annual sampling, groundwater monitoring events will continue to be conducted on the remaining monitoring wells. Groundwater samples will be analyzed for the six primary COCs remaining at the Site: PCE; TCE; cis-1,2-DCE; trans-1,2-DCE; 1,1-DCE; and vinyl chloride. These VOCs will be analyzed using EPA Method 8260C. Additionally, as detailed in the revised *Operations, Maintenance, and Monitoring Manual* (MACTEC, 2011), the groundwater samples will be analyzed for the full suite of 8260C constituents every five years and prior to ending monitoring at any specified well.

- Results for future post-closure monitoring events will be provided to NYSDEC in subsequent annual reports.

References

Amec Foster Wheeler, 2016. *2016 Annual Progress Report and Remedial Progress Evaluation*, Former Taylor Instruments Site, Rochester, New York. Prepared for ABB, Inc. (February).

Harding ESE, 2001. *Dual-Phase Vacuum Extraction Remediation System Operation and Maintenance Manual (OM&M)*, prepared for the former Taylor Instruments Site, 95 Ames Street in Rochester, New York (March).

Harding Lawson Associates, 1999. *Final Investigative Report, Taylor Instruments Site, Rochester, New York.* Prepared for 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, 2011. *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. (March).

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

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

NYSDEC, 2011a. Letter to Ricky Ryan of AMEC approving the CCR (February 16).

NYSDEC, 2011b. Letter to Ricky Ryan of AMEC approving the *Operations, Maintenance, and Monitoring Manual, Rev. 1, Former Taylor Instruments Site, Monroe County, New York.* (March 3).

NYSDEC, 2017. *Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal*. (January 6).

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®
µg/L	micrograms per liter
µmole/L	micromole per liter
Amec Foster Wheeler	Amec Foster Wheeler Environment & Infrastructure, Inc.
AR-CNTS	Assignable Release and Covenant Not to Sue
CCR	*Construction Completion Report* (MACTEC, 2010b)
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.
mV	millivolts
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
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
System	DPVE and bedrock groundwater extraction and treatment system
TCE	trichloroethene
VCA	Voluntary Cleanup Agreement
VOC	volatile organic compound

Attachment A

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: 14.5

Reporting Period: February 14, 2016 to February 14, 2017

	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

SITE NO. V00144

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
120.410-1-2	ABB, Inc. (Attn: Melody Christopher)	Ground Water Use Restriction Landuse Restriction Soil Management Plan
~~Ground Water Use Restriction~~		
~~Landuse Restriction~~		
~~Soil Management Plan~~		
~~Annual certification~~		
~~120.42-1-4~~	~~Roderick Nelson, Jr.~~	~~Site Management Plan~~
~~Sub-slab depressurization system~~		
~~Annual Certification~~		

Box 4

Description of Engineering Controls

Parcel	Engineering Control
120.410-1-2	Vapor Mitigation (Future Buildings) Cover System Annual Certification
~~Cover System~~	
~~Vapor Mitigation (future buildings)~~	
~~120.42-1-4~~	
	~~Vapor Mitigation~~

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 B. Christopher (print name) at ABB 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, Environmental Project Manager, ABB — Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

2/27/2017 — 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 Ryan (print name) at 2030 Falling Waters Road, Knoxville, TN 37922 (print business address)

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

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

(Required for [illegible])

Date 7/17

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: 14.5

Reporting Period: February 14, 2016 to February 14, 2017

	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

SITE NO. V00144

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
~~120.410-1-2~~	~~ABB, Inc. (Attn: Melody Christopher)~~	~~Ground Water Use Restriction~~ ~~Landuse Restriction~~ ~~Soil Management Plan~~
~~Ground Water Use Restriction~~ ~~Landuse Restriction~~ ~~Soil Management Plan~~ ~~Annual certification~~		
120.42-1.4	Roderick Nelson, Jr.	Site Management Plan
~~Sub-slab depressurization system~~ ~~Annual Certification~~		

Box 4

Description of Engineering Controls

Parcel	Engineering Control
~~120.410-1-2~~	~~Vapor Mitigation~~ ~~Cover System~~
~~Cover System~~ ~~Vapor Mitigation (future buildings)~~	
120.42-1.4	Vapor Mitigation Annual Certification

Parcel 120.42-1.4 is located at 80 Ames St./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 B Christopher (print name) at ABB, 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, Environmental Project Manager ABB (Signature of Owner, Remedial Party, or Designated Representative Rendering Certification) 2/27/2017 (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 Ryan (print name) at 2030 Falling Waters Rd., Knoxville, TN 37922 (print business address)

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

7/17

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

Stamp (Required for PE) Date

Attachment B

Mitigation Tech Inspection Report for Sub-Slab Depressurization System
80 Ames Street and 215 Danforth Street

mitigation tech *vapor intrusion specialists*

INSPECTION REPORT

November 1, 2016

Mr. Joe Deatherage, P.E.
Senior Engineer
AMEC Foster Wheeler
2030 Falling Waters Rd., STE 300
Knoxville, TN 37922
Via email: joe.deatherage@amecfw.com

Re: ABB Rochester - Former Taylor Instruments
Project No. 3031152028-01//// WO No. & PO No.: C012605660
Work site: 80 Ames St./215 Danforth St., Rochester, NY
Inspection Report for Sub-slab Depressurization System

For work completed October 25, 2016 per WO C012605660, January 29, 2016

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: **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 occupantor owner seeking comments and observations regarding the operation of the System:**SATISFACTORY**

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

Nicholas E. Mouganis EPA listing # 15415-I; NEHA ID# 100722 ***mitigationtech.com

APPENDIX C

TABLES

Table 1
Overburden Monitoring Wells with COCs Exceeding NYSDEC Class GA Standards
October 2016

2016 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

COC	NYSDEC Class GA Standard	Monitoring Well						
		OB-04	OB-06	OB-08	TW-09	TW-17	TW-20	W-5
PCE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TCE	5	1.97	**50.8**	1 U	**5.31**	1.07	**18.6**	**104**
cis-1,2-DCE	5	2.52	**19.3**	1 U	3.20	**24.2**	1 U	**56.9**
trans-1,2-DCE	5	1.18	1.70	3.72	1.07	1 U	1 U	**8.27**
1,1-DCE	5	1 U	1.57	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	2	**17.6**	**20.6**	**3.29**	1 U	**4.26**	1 U	**27.3**

All concentrations are in micrograms per liter.

Created by: NG on 11/18/16
Checked by: KJD on 11/18/16

Notes: **Bold and shaded** values indicate detection exceeding NYSDEC Class GA Standards
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 NYSDEC Class GA Standards
October 2016

2016 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

COC	NYSDEC 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	1.19	1 U
TCE	5	**10.9**	**14.9**	**464**	**441**	**154**	1 U
cis-1,2-DCE	5	**787**	**30.3**	**27.1**	**972**	**345**	1 U
trans-1,2-DCE	5	**30.0**	1.65	1.32	**81.9**	**50.1**	1 U
1,1-DCE	5	2.50	1 U	2.17	**9.15**	1.50	1 U
Vinyl Chloride	2	**158**	1 U	1 U	**62.0**	**2.11**	**3.0**

All concentrations are in micrograms per liter.

Created by: NG on 11/18/16
Checked by: KJD on 11/18/16

Notes: **Bold and shaded** values indicate detection exceeding NYSDEC 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 2000-2016 Sampling Events

2016 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	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	09/13/01	--	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)	NS (Dry)
OB-04	12/17/01	19.9	71,500	56,000	170	108	10.2
OB-04	03/12/02	12.9	65,600	1,640	16.6	3.8	--
OB-04	06/09/02	--	3,650	554	--	--	--
OB-04	09/23/02	1.8	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	6.0	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	1.0	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-04	05/15/12	--	4.35	2.05	1.26	--	8.69
OB-04	10/30/12	--	3.94	2.31	--	--	4.25
OB-04	05/15/13	--	3.48	1.08	--	--	--
OB-04	11/13/13	--	2.95	--	--	--	2.44
OB-04	05/07/14	--	1.46	--	--	--	1.21
OB-04	10/28/14	--	--	--	--	--	4.25
OB-04	05/12/15	--	1.82	--	--	--	3.7
OB-04	10/27/15	--	2.36	--	--	--	7.3
OB-04	05/03/16	--	1.84	--	--	--	8.03
OB-04	10/25/16	--	1.97	2.52	1.18	--	17.6
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	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2016 Sampling Events

2016 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	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	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	--	--	--
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-06	05/15/12	--	25.4	7.56	--	--	2.72
OB-06	10/30/12	--	34.3	6.63	--	--	3.86
OB-06	05/15/13	--	40.1	7.5	--	--	2.56
OB-06	11/13/13	--	43.7	7.83	1.03	--	8.02
OB-06	05/07/14	--	36.5	6.80	--	--	2.51
OB-06	10/28/14	--	38.9	7.64	1.05	--	5.20
OB-06	05/12/15	--	22.9	5.14	--	--	3.26
OB-06	10/27/15	--	38.8	9.68	1.09	--	7.63
OB-06	05/03/16	--	40.4	10.6	1.30	1.60	8.50
OB-06	10/26/16	--	50.8	19.3	1.70	1.57	20.6
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	13.1	15,750	208	8.6	2.7	--
OB-08	06/10/02	--	5,370	--	--	--	--
OB-08	09/24/02	9.4	5,440	110	3.6	--	--
OB-08	12/09/02	8.9	8,050	94.2	5	1.3	--
OB-08	03/24/03	5.1	3,480	37.3	2.2	--	--
OB-08	06/13/03	3.9	2,250	15.3	1.2	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2016 Sampling Events

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Sample ID	Date Sampled	PCE (µg/L)	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	09/22/03	2.6	2,780	32.1	3.1	--	--
OB-08	12/15/03	3.3	1,360	10.8	1.5	--	--
OB-08	06/20/04	2.9	725	13.1	2.5	--	--
OB-08	12/06/04	--	429	5.80	--	--	--
OB-08	06/29/05	1.3	570	3.3	--	--	--
OB-08	12/06/05	2.12	797	6.25	2.17	--	--
OB-08	07/21/06	2.13	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
OB-08	05/04/11	--	--	67.9	22.7	--	249
OB-08	11/02/11	--	--	--	15.5	--	4.73
OB-08	05/17/12	--	--	3.78	11.1	--	13.2
OB-08	10/31/12	--	--	--	11.2	--	3.15
OB-08	05/15/13	--	--	--	8.29	--	5.72
OB-08	11/14/13	--	--	--	2.44	--	--
OB-08	05/07/14	--	--	--	3.50	--	3.03
OB-08	10/28/14	--	--	--	9.57	--	--
OB-08	05/12/15	--	--	--	6.05	--	8.66
OB-08	10/27/15	--	--	--	5.47	--	--
OB-08	05/03/16	--	--	10.7	13.4	--	67.5
OB-08	10/26/16	--	--	--	3.72	--	3.29
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	--	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2016 Sampling Events

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Sample ID	Date Sampled	PCE (µg/L)	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-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-04	05/16/12	--	1.66	1.56	--	--	--
TW-04	10/31/12	--	--	2.85	--	--	--
TW-04	05/14/13	--	--	1.13	--	--	--
TW-04	11/13/13	--	--	6.87	--	--	--
TW-04	05/07/14	--	--	2.08	--	--	--
TW-04	10/28/14	--	--	8.24	--	--	--
TW-04	05/12/15	--	--	1.84	--	--	--
TW-04	10/27/15	--	--	5.18	--	--	--
TW-04	05/03/16	--	--	--	--	--	--
TW-04	10/25/16	--	--	2.67	--	--	--
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	--	--	--
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	--	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2016 Sampling Events

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Sample ID	Date Sampled	PCE (µg/L)	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	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-09	05/16/12	--	1.18	1.11	2.99	--	1.97
TW-09	11/01/12	--	--	--	--	--	--
TW-09	05/14/13	--	4.05	2.91	5.58	--	3.49
TW-09	11/12/13	--	--	3.38	6.92	--	9.03
TW-09	05/07/14	--	6.06	4.15	3.47	--	2.09
TW-09	10/29/14	--	2.98	12.5	9.86	--	12.9
TW-09	05/13/15	--	16.4	18.7	11.8	--	9.81
TW-09	10/28/15	--	8.18	38.9	20.8	--	21
TW-09	05/04/16	--	10.8	16.8	6.85	--	6.90
TW-09	10/26/16	--	5.31	3.20	1.07	--	--
TW-17	11/17/00	--	1,000	7.9J	--	--	--
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	--	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2016 Sampling Events

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TW-17	05/05/11	--	205	115	--	--	--
TW-17	11/03/11	--	21.6	310	--	--	4.92
TW-17	05/16/12	--	2.16	156	--	--	6.28
TW-17	10/31/12	--	--	147	--	--	2.66
TW-17	05/16/13	--	2.63	556	1.22	--	39.3
TW-17	11/14/13	--	--	240	--	--	130
TW-17	05/08/14	--	1.38	112	4.21	--	48.0
TW-17	10/29/14	--	--	1.51	--	--	4.80
TW-17	05/13/15	--	--	2.74	--	--	2.1
TW-17	10/29/15	--	1.83	6.59	--	--	3
TW-17	05/03/16	--	13.5	170	2.95	--	84.4
TW-17	10/26/16	--	1.07	24.2	--	--	4.26
TW-20	10/25/00	--	5.2	--	--	--	--
TW-20	03/27/01	--	12	--	--	--	--
TW-20	06/16/01	--	2.9 J	--	--	--	--
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-04	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	--	--	--
TW-20	05/17/12	--	80.8	4.58	--	--	--
TW-20	11/01/12	--	107	4.11	--	--	--
TW-20	05/16/13	--	72.3	3.14	--	--	--
TW-20	11/14/13	--	56.6	1.73	--	--	--

See notes at end of table

Table 3 (Continued)
Summary of VOC Results for Existing Overburden Wells for the 2000-2016 Sampling Events

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Sample ID	Date Sampled	PCE (µg/L)	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	05/08/14	--	48.4	4.48	--	--	--
TW-20	10/29/14	--	6.11	--	--	--	--
TW-20	05/13/15	--	30.2	2.25	--	--	--
TW-20	10/28/15	--	27.3	--	--	--	--
TW-20	05/04/16	--	26.3	--	--	--	--
TW-20	10/26/16	--	18.6	--	--	--	--
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	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	--	--
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

See notes at end of table

Table 3 (Continued)
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Sample ID	Date Sampled	PCE (µg/L)	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	05/05/08	2.41	1,180	314	4.41	--	6.77 J
W-5 (DUP)	05/05/08	2.25	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
W-5	05/17/12	--	230	139	5.37	--	39.5
W-5 (DUP)	05/17/12	--	220	136	5.19	--	37.2
W-5	11/01/12	--	195	85	13.1	--	34.8
W-5 (DUP)	11/01/12	--	191	83.9	12.9	--	34.2
W-5	05/16/13	--	218	75	10.6	--	35.3
DUP-01	05/16/13	--	228	74.6	10.3	--	33.8
W-5	11/14/13	--	182	69.5	10.2	--	36.5
DUP-01	11/14/13	--	185	69.8	9.97	--	33.8
W-5	05/08/14	--	182	49.7	7.35	--	14.9
DUP-01	05/08/14	--	177	52.1	7.71	--	15.3
W-5	10/29/14	--	141	57.9	10.9	--	39.7
DUP-01	10/29/14	--	155	55.6	10.3	--	33.9
W-5	05/13/15	--	106	40.5	6.15	--	26.1
DUP-01	05/13/15	--	109	42.5	6.11	--	27.0
W-5	10/28/15	--	116	51.5	8.51	--	34.7
DUP-01	10/28/15	--	122	50.6	8.01	--	31.5
W-5	05/04/16	--	85.6	41.6	7.24	--	26.9
DUP-01	05/04/16	--	85.6	42.9	7.55	--	27.4
W-5	10/26/16	--	104	56.9	8.27	--	27.3
DUP-01	10/26/16	--	109	61.6	9.60	--	27.8

Notes:
-- = no detections
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
TCE = trichloroethene
VOC = volatile organic compound

Prepared by NG on 11/18/16
Checked by KJD on 11/18/16

Table 4
Summary of VOC Results for Existing Bedrock Wells for the 2000-2016 Sampling Events

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Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	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-01	05/17/12	--	89.6	34.7	1.87	--	3.13
BR-01	10/31/12	--	--	29.6	--	--	7.88
BR-01	05/15/13	--	76.3	695	35.4	7.52	200
BR-01	11/14/13	--	111	1,470	34.4	6.87	406
BR-01	05/08/14	--	98.9	1,570	61.4	7.70	377
BR-01	10/29/14	--	86.9	1,590	56.6	7.62	320
BR-01	05/14/15	--	40.4	1,240	37.1	--	244
BR-01	10/29/15	--	31.8	906	39.8	4.03	244
BR-01	05/05/16	--	13.0	861	36.8	--	302
BR-01	10/27/16	--	10.9	787	30.0	2.50	158
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	--

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for Existing Bedrock Wells for the 2000-2016 Sampling Events

2016 Annual Progress Report
and Remedial Progress Evaluation
Former Taylor Instruments Site
Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	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	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	--	--
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	1.32	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-02	05/16/12	--	5070	1100	49.4	8.67	22
BR-02	11/01/12	--	44.5	23.3	4.69	--	--
BR-02	05/16/13	--	904	169	12.6	1.61	2.3
BR-02	11/13/13	--	27	24.1	3.45	--	--
BR-02	05/08/14	--	25,200	5,860	238	46.4	103
BR-02	10/29/14	--	25.3	19.7	2.52	--	--
BR-02	05/14/15	--	506	167	7.23	--	3.41
BR-02	10/29/15	--	16.6	21.7	1.54	--	--
BR-02	05/05/16	--	196	335	15.3	2.59	12.6
BR-02	10/27/16	--	14.9	30.3	1.65	--	--
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	--	--	--

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for Existing Bedrock Wells for the 2000-2016 Sampling Events

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Rochester, New York

Sample ID	Date Sampled	PCE (µg/L)	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	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	--	--	--
BR-03	11/02/11	--	--	37.1	--	--	--
BR-03	05/16/12	--	573	43.4	1.18	1.89	--
BR-03	10/31/12	--	3.06	329	6.71	1.71	--
BR-03	05/16/13	--	596	23.2	4.92	1.83	--
BR-03	11/13/13	--	653	18.2	--	2.04	--
BR-03	05/08/14	--	519	15.3	1.66	1.72	--
BR-03	10/29/14	--	381	37.0	1.73	1.74	--
BR-03	05/14/15	--	353	40.6	1.12	1.40	--
BR-03	10/29/15	--	360	76.4	1.77	1.86	--
BR-03	05/04/16	--	225	79.1	1.19	1.58	--
BR-03	10/27/16	--	464	27.1	1.32	2.17	--
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	1.2	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	1.8	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

See notes at end of table.

Table 4 (Continued)
Summary of VOC Results for Existing Bedrock Wells for the 2000-2016 Sampling Events

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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-04	05/15/12	--	55.1	76.6	2.9	--	2.72
BR-04	10/31/12	--	4.9	4.77	--	--	--
BR-04	05/15/13	--	1,430	1,370	97.4	9.47	72.5
BR-04	11/12/13	--	638	1,320	66.9	9.96	77
BR-04	05/07/14	--	757	1,370	88.7	11.5	68.0
BR-04	10/29/14	--	514	955	77.4	9.33	55.1
BR-04	05/14/15	--	437	977	61.6	7.27	52.7
BR-04	10/29/15	--	331	661	64.9	7.78	46.2
BR-04	05/05/16	--	354	831	51.0	6.63	48.5
BR-04	10/27/16	--	441	972	81.9	9.15	62.0
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
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	1.3	558	166	17.3	--	1.3
BR-10	12/03/05	1.62	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	--	--

See notes at end of table.

Table 4 (Continued)
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Sample ID	Date Sampled	PCE (µg/L)	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	05/02/07	1.01	226	57.8	5.87	--	--
BR-10	12/12/07	--	17.8	3.83	--	--	--
BR-10	05/04/08	2.94	357	94.6	10.7	--	1.40
BR-10	11/05/08	--	8.44	3.02	--	--	--
BR-10	05/05/09	1.67	235	66.1	10.3	--	1.07
BR-10	10/20/09	--	48	22	2.79	--	--
BR-10	05/11/10	1.72	277	77.3	14.0	--	--
BR-10	05/03/11	1.36	725	312	26.3	--	2.79
BR-10	11/01/11	1.35	417	231	25.3	--	2.87
BR-10	05/15/12	1.28	532	192	24	--	1.13
BR-10	10/31/12	--	7.28	2.21	--	--	--
BR-10	05/15/13	--	517	153	26	--	--
BR-10	11/12/13	1.76	444	173	29	1.11	2.17
BR-10	05/07/14	--	329	189	32.8	--	1.02
BR-10	10/29/14	1.33	345	299	46.2	1.49	2.72
BR-10	05/14/15	--	142	260	38.5	--	--
BR-10	10/29/15	--	201	343	56.5	1.61	3.04
BR-10	05/05/16	--	233	257	43.3	--	--
BR-10	10/27/16	1.19	154	345	50.1	1.50	2.11
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
BR-15	05/16/12	--	--	--	--	--	--
BR-15	11/01/12	--	--	--	--	--	--
BR-15	05/14/13	--	--	1.53	--	--	7.51
BR-15	11/12/13	--	--	--	1.02	--	8.9

See notes at end of table

Table 4 (Continued)
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BR-15	05/07/14	--	1.64	8.33	2.47	--	41.1
BR-15	10/28/14	--	--	1.28	1.77	--	11.3
BR-15	05/13/15	--	--	1.94	--	--	16.9
BR-15	10/28/15	--	--	--	--	--	2.2
BR-15	05/04/16	--	--	--	--	--	1.42
BR-15	10/25/16	--	--	--	--	--	3.0

Notes:
-- = no detections
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
TCE = trichloroethene
VOC = volatile organic compound

Prepared by NG on 11/18/16
Checked by KJD on 11/18/16

APPENDIX D

LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

MAY 2016
LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

May 16, 2016

Joe Deatherage
AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, TN 37923
USA

RE: **FRM. TAYLOR / 3031152028**
Pace Workorder: *19030*

Dear Joe Deatherage:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, May 06, 2016. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 05/16/2016
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages ____

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 19030 FRM. TAYLOR / 3031152028

Lab ID	Sample ID	Matrix	Date Collected	Date Received
190300001	TW-04	Water	5/3/2016 10:20	5/6/2016 12:30
190300002	OB-04	Water	5/3/2016 12:10	5/6/2016 12:30
190300003	OB-08	Water	5/3/2016 13:50	5/6/2016 12:30
190300004	OB-06	Water	5/3/2016 15:30	5/6/2016 12:30
190300005	TW-17	Water	5/3/2016 17:30	5/6/2016 12:30
190300006	W-5	Water	5/4/2016 14:45	5/6/2016 12:30

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PROJECT SUMMARY

Workorder: 19030 FRM. TAYLOR / 3031152028

Workorder Comments

The container pH for samples 19030 (0006) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method RSK175.

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ANALYTICAL RESULTS

Workorder: 19030 FRM. TAYLOR / 3031152028

Lab ID: **190300001** Date Received: 5/6/2016 12:30 Matrix: Water

Sample ID: **TW-04** Date Collected: 5/3/2016 10:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - MICR								
Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	**0.20 U**	mg/l	0.20	0.0060	1	5/11/2016 07:20	KB	
Acetic Acid	**0.011J**	mg/l	0.10	0.0070	1	5/11/2016 07:20	KB	
Propionic Acid	**0.10 U**	mg/l	0.10	0.0090	1	5/11/2016 07:20	KB	
Formic Acid	**0.030J**	mg/l	0.10	0.0050	1	5/11/2016 07:20	KB	B
Butyric Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 07:20	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 07:20	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 07:20	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	5/11/2016 07:20	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	5/11/2016 07:20	KB	
Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0070	1	5/11/2016 07:20	KB	
RISK - MICR								
Analysis Desc: EPA RSK175		Analytical Method: EPA RSK175						
Methane	**190**	ug/l	0.50	0.019	1	5/11/2016 10:37	AK	B
Ethene	**0.20 U**	ug/l	0.20	0.0070	1	5/11/2016 10:37	AK	

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ANALYTICAL RESULTS

Workorder: 19030 FRM. TAYLOR / 3031152028

Lab ID: **190300002** Date Received: 5/6/2016 12:30 Matrix: Water

Sample ID: **OB-04** Date Collected: 5/3/2016 12:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - MICR								
Analysis Desc: AM23G	Analytical Method: AM23G							
Lactic Acid	**0.20 U**	mg/l	0.20	0.0060	1	5/11/2016 08:14	KB	
Acetic Acid	**1.9**	mg/l	0.10	0.0070	1	5/11/2016 08:14	KB	
Propionic Acid	**0.015J**	mg/l	0.10	0.0090	1	5/11/2016 08:14	KB	
Formic Acid	**0.025J**	mg/l	0.10	0.0050	1	5/11/2016 08:14	KB	B
Butyric Acid	**0.14**	mg/l	0.10	0.0070	1	5/11/2016 08:14	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 08:14	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 08:14	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	5/11/2016 08:14	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	5/11/2016 08:14	KB	
Hexanoic Acid	**0.044J**	mg/l	0.20	0.0070	1	5/11/2016 08:14	KB	

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ANALYTICAL RESULTS

Workorder: 19030 FRM. TAYLOR / 3031152028

Lab ID: **190300003** Date Received: 5/6/2016 12:30 Matrix: Water

Sample ID: **OB-08** Date Collected: 5/3/2016 13:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - MICR								
Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	**0.20 U**	mg/l	0.20	0.0060	1	5/11/2016 09:07	KB	
Acetic Acid	**0.063J**	mg/l	0.10	0.0070	1	5/11/2016 09:07	KB	
Propionic Acid	**0.10 U**	mg/l	0.10	0.0090	1	5/11/2016 09:07	KB	
Formic Acid	**0.041J**	mg/l	0.10	0.0050	1	5/11/2016 09:07	KB	B
Butyric Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 09:07	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 09:07	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 09:07	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	5/11/2016 09:07	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	5/11/2016 09:07	KB	
Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0070	1	5/11/2016 09:07	KB	

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 19030 FRM. TAYLOR / 3031152028

Lab ID: **190300004** Date Received: 5/6/2016 12:30 Matrix: Water

Sample ID: **OB-06** Date Collected: 5/3/2016 15:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - MICR								
Analysis Desc: AM23G			Analytical Method: AM23G					
Lactic Acid	**0.20 U**	mg/l	0.20	0.0060	1	5/11/2016 10:00	KB	
Acetic Acid	**2.1**	mg/l	0.10	0.0070	1	5/11/2016 10:00	KB	
Propionic Acid	**0.034J**	mg/l	0.10	0.0090	1	5/11/2016 10:00	KB	
Formic Acid	**0.032J**	mg/l	0.10	0.0050	1	5/11/2016 10:00	KB	B
Butyric Acid	**0.021J**	mg/l	0.10	0.0070	1	5/11/2016 10:00	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 10:00	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 10:00	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	5/11/2016 10:00	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	5/11/2016 10:00	KB	
Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0070	1	5/11/2016 10:00	KB	
RISK - MICR								
Analysis Desc: EPA RSK175			Analytical Method: EPA RSK175					
Methane	**19000**	ug/l	50	1.9	100	5/12/2016 13:33	AK	d,B
Ethene	**2.0**	ug/l	0.20	0.0070	1	5/11/2016 10:47	AK	

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ANALYTICAL RESULTS

Workorder: 19030 FRM. TAYLOR / 3031152028

Lab ID: **190300005** Date Received: 5/6/2016 12:30 Matrix: Water

Sample ID: **TW-17** Date Collected: 5/3/2016 17:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - MICR								
Analysis Desc: AM23G			Analytical Method: AM23G					
Lactic Acid	**0.20 U**	mg/l	0.20	0.0060	1	5/11/2016 10:54	KB	
Acetic Acid	**9.9**	mg/l	1.0	0.070	10	5/13/2016 04:56	KB	d,B
Propionic Acid	**0.12**	mg/l	0.10	0.0090	1	5/11/2016 10:54	KB	
Formic Acid	**0.019J**	mg/l	0.10	0.0050	1	5/11/2016 10:54	KB	B
Butyric Acid	**0.34**	mg/l	0.10	0.0070	1	5/11/2016 10:54	KB	
Pyruvic Acid	**0.012J**	mg/l	0.10	0.0070	1	5/11/2016 10:54	KB	
i-Pentanoic Acid	**0.024J**	mg/l	0.10	0.0070	1	5/11/2016 10:54	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	5/11/2016 10:54	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	5/11/2016 10:54	KB	
Hexanoic Acid	**0.14J**	mg/l	0.20	0.0070	1	5/11/2016 10:54	KB	
RISK - MICR								
Analysis Desc: EPA RSK175			Analytical Method: EPA RSK175					
Methane	**22000**	ug/l	50	1.9	100	5/12/2016 13:45	AK	d,B
Ethene	**14**	ug/l	0.20	0.0070	1	5/11/2016 11:00	AK	

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ANALYTICAL RESULTS

Workorder: 19030 FRM. TAYLOR / 3031152028

Lab ID: **190300006** Date Received: 5/6/2016 12:30 Matrix: Water

Sample ID: **W-5** Date Collected: 5/4/2016 14:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - MICR								
Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	**0.20 U**	mg/l	0.20	0.0060	1	5/11/2016 11:47	KB	
Acetic Acid	**0.0078J**	mg/l	0.10	0.0070	1	5/11/2016 11:47	KB	
Propionic Acid	**0.10 U**	mg/l	0.10	0.0090	1	5/11/2016 11:47	KB	
Formic Acid	**0.046J**	mg/l	0.10	0.0050	1	5/11/2016 11:47	KB	B
Butyric Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 11:47	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 11:47	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	5/11/2016 11:47	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	5/11/2016 11:47	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	5/11/2016 11:47	KB	
Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0070	1	5/11/2016 11:47	KB	
RISK - MICR								
Analysis Desc: EPA RSK175		Analytical Method: EPA RSK175						
Methane	**2000**	ug/l	25	0.95	50	5/12/2016 13:55	AK	d,B
Ethene	**2.3**	ug/l	0.20	0.0070	1	5/11/2016 12:01	AK	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 19030 FRM. TAYLOR / 3031152028

DEFINITIONS/QUALIFIERS

Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20GAx, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
B	The analyte was detected in the associated blank.
d	The analyte concentration was determined from a dilution.

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QUALITY CONTROL DATA

Workorder: 19030 FRM. TAYLOR / 3031152028

QC Batch: EDON/2890 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 190300001, 190300002, 190300003, 190300004, 190300005, 190300006

METHOD BLANK: 41837

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.20 U	0.20	
Acetic Acid	mg/l	0.10 U	0.10	
Propionic Acid	mg/l	0.10 U	0.10	
Formic Acid	mg/l	0.0071J	0.10	B
Butyric Acid	mg/l	0.10 U	0.10	
Pyruvic Acid	mg/l	0.10 U	0.10	
i-Pentanoic Acid	mg/l	0.10 U	0.10	
Pentanoic Acid	mg/l	0.10 U	0.10	
i-Hexanoic Acid	mg/l	0.20 U	0.20	
Hexanoic Acid	mg/l	0.20 U	0.20	

LABORATORY CONTROL SAMPLE: 41838

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	2.0	99	70-130	
Acetic Acid	mg/l	2	2.0	98	70-130	
Propionic Acid	mg/l	2	2.1	104	70-130	
Formic Acid	mg/l	2	1.8	93	70-130	B
Butyric Acid	mg/l	2	2.0	100	70-130	
Pyruvic Acid	mg/l	2	2.0	102	70-130	
i-Pentanoic Acid	mg/l	2	2.0	98	70-130	
Pentanoic Acid	mg/l	2	1.9	97	70-130	
i-Hexanoic Acid	mg/l	2	1.8	93	70-130	
Hexanoic Acid	mg/l	2	1.7	86	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 41839 41840 Original: 190190001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
EDonors											
Lactic Acid	mg/l	0	20	19	19	97	97	70-130	0	30	d

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QUALITY CONTROL DATA

Workorder: 19030 FRM. TAYLOR / 3031152028

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 41839 41840 Original: 190190001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acetic Acid	mg/l	0.22	20	20	20	101	100	70-130	1	30	d
Propionic Acid	mg/l	0	20	22	21	108	106	70-130	1.9	30	d
Formic Acid	mg/l	0.16	20	19	19	95	94	70-130	1.1	30	d,B
Butyric Acid	mg/l	0.69	20	22	22	107	105	70-130	1.9	30	d
Pyruvic Acid	mg/l	0.085	20	21	21	104	103	70-130	0.97	30	d
i-Pentanoic Acid	mg/l	0	20	21	21	106	104	70-130	1.9	30	d
Pentanoic Acid	mg/l	0.12	20	22	22	109	108	70-130	0.92	30	d
i-Hexanoic Acid	mg/l	0	20	22	22	111	110	70-130	0.9	30	d
Hexanoic Acid	mg/l	0	20	21	21	107	106	70-130	0.94	30	d

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QUALITY CONTROL DATA

Workorder: 19030 FRM. TAYLOR / 3031152028

QC Batch: DISG/5358 Analysis Method: EPA RSK175

QC Batch Method: EPA RSK175

Associated Lab Samples: 190300001, 190300004, 190300005, 190300006

METHOD BLANK: 41862

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.024J	0.50	B
Ethene	ug/l	0.20 U	0.20	

LABORATORY CONTROL SAMPLE & LCSD: 41863 41864

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	44	45	46	101	103	85-115	2	20	B
Ethene	ug/l	78	80	81	103	104	85-115	0.97	20	

SAMPLE DUPLICATE: 41872 Original: 190110008

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	54	47	13	20	B
Ethene	ug/l	86	77	10	20	

SAMPLE DUPLICATE: 41873 Original: 190300001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	190	190	4.3	20	B
Ethene	ug/l	0	0	0	20	

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QUALITY CONTROL DATA

Workorder: 19030 FRM. TAYLOR / 3031152028

QC Batch: DISG/5364 Analysis Method: EPA RSK175

QC Batch Method: EPA RSK175

Associated Lab Samples: 190300004, 190300005, 190300006

METHOD BLANK: 41900

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.023J	0.50	B

LABORATORY CONTROL SAMPLE & LCSD: 41901 41902

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	44	45	45	102	101	85-115	0.99	20	B

SAMPLE DUPLICATE: 41903 Original: 190530002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	220	190	14	20	B

SAMPLE DUPLICATE: 41910 Original: 190530008

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	53	56	5.3	20	B

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QUALITY CONTROL DATA

Workorder: 19030 FRM. TAYLOR / 3031152028

QC Batch: EDON/2894 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 190300005

METHOD BLANK: 41941

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Acetic Acid	mg/l	0.0078J	0.10	B

LABORATORY CONTROL SAMPLE: 41942

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Acetic Acid	mg/l	2	2.0	98	70-130	B

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 19030 FRM. TAYLOR / 3031152028

QUALITY CONTROL PARAMETER QUALIFIERS

B	The analyte was detected in the associated blank.
d	The analyte concentration was determined from a dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 19030 FRM. TAYLOR / 3031152028

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
190300001	TW-04			AM23G	EDON/2890
190300002	OB-04			AM23G	EDON/2890
190300003	OB-08			AM23G	EDON/2890
190300004	OB-06			AM23G	EDON/2890
190300005	TW-17			AM23G	EDON/2890
190300006	W-5			AM23G	EDON/2890
190300001	TW-04			EPA RSK175	DISG/5358
190300004	OB-06			EPA RSK175	DISG/5358
190300005	TW-17			EPA RSK175	DISG/5358
190300006	W-5			EPA RSK175	DISG/5358
190300004	OB-06			EPA RSK175	DISG/5364
190300005	TW-17			EPA RSK175	DISG/5364
190300006	W-5			EPA RSK175	DISG/5364
190300005	TW-17			AM23G	EDON/2894

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19030

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

010330

Section A Required Client Information:

Company: Amec Foster Wheeler
Address: 2030 Falling Waters Rd. Suite 30
Knoxville, TN 37922
Email To: joe.deatherage@amecfw.com
Phone: 865-218-1099 Fax: —
Requested Due Date/TAT: STANDARD

Section B Required Project Information:

Report To: Joe' Deatherage
Copy To:
Purchase Order No.: C0126059 7
Project Name: Former Taylor Instruments
Project Number: 303115 2028

Section C Invoice Information:

Attention:
Company Name: Amec Foster wheeler
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test Y/N	VFAs, AM23G	methane/ethene	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	TW-04	WT	G			05/03	1020		5										X	X		
2	OB-04	"	"			"	1210		2										X			
3	OB-08	"	"			"	1350		2										X			
4	OB-06	"	"			"	1530		5										X	X		
5	TW-17	"	"			"	1730		5										X	X		
6	W-5	"	"			5/04	1445		5										X	X		
7																						
8																						
9																						
10																						
11																						
12																						

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
				ACCD PACE	5.6.16	1230	2 Y Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nicole Garland

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 05/05/16

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

Client Name: Amec FW Project: Frm. Taylor Lab Work Order: 19030

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: (Yes) No

Tracking Number: 7830 0016 4606

Custody Seal on Cooler/Box Present: (Yes) No Seals Intact: (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None Ice Intact: (Yes) Melted

Cooler Temperature: 2°C Radiation Screened: Yes (No) Chain of Custody Present: (Yes) No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC	✓			
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by: CJ Date: 5.6.16

Project Manager Review: RW Date: 5-9-16

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-103266-1
Client Project/Site: Former Taylor Instruments

For:
AMEC Foster Wheeler E & I, Inc
2030 Falling Waters Road
Ste 300
Knoxville, Tennessee 37922

Attn: Mr. Joe Deatherage

Authorized for release by:
5/24/2016 1:59:50 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

Table of Contents

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-103266-1	TW-04	Water	05/03/16 10:20	05/06/16 10:10
490-103266-2	OB-04	Water	05/03/16 12:10	05/06/16 10:10
490-103266-3	OB-08	Water	05/03/16 13:50	05/06/16 10:10
490-103266-4	OB-06	Water	05/03/16 15:30	05/06/16 10:10
490-103266-5	TW-17	Water	05/03/16 17:30	05/06/16 10:10
490-103266-6	BR-15	Water	05/04/16 10:25	05/06/16 10:10
490-103266-7	TW-20	Water	05/04/16 11:35	05/06/16 10:10
490-103266-8	TW-09	Water	05/04/16 13:05	05/06/16 10:10
490-103266-9	W-5	Water	05/04/16 14:45	05/06/16 10:10
490-103266-10	BR-03	Water	05/04/16 17:00	05/06/16 10:10
490-103266-11	QATB-01	Water	05/03/16 00:01	05/06/16 10:10
490-103266-12	BR-10	Water	05/05/16 09:20	05/06/16 10:10
490-103266-13	BR-04	Water	05/05/16 10:20	05/06/16 10:10
490-103266-14	BR-02	Water	05/05/16 11:45	05/06/16 10:10
490-103266-15	BR-01	Water	05/05/16 13:10	05/06/16 10:10
490-103266-16	QAFB-01	Water	05/05/16 13:30	05/06/16 10:10
490-103266-17	QARB-01	Water	05/05/16 13:55	05/06/16 10:10
490-103266-18	DUP-01	Water	05/04/16 00:01	05/06/16 10:10

Job ID: 490-103266-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-103266-1

Comments
No additional comments.

Receipt
The samples were received on 5/6/2016 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

GC/MS VOA
Method(s) 8260C: The following samples was diluted due to the nature of the sample matrix: BR-04 (490-103266-13) and BR-01 (490-103266-15). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 490-339078.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
Method(s) 300.0: The following samples were diluted due to the nature of the sample matrix: TW-04 (490-103266-1), OB-06 (490-103266-4), W-5 (490-103266-9) and (490-103266-D-1 MS). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The matrix spike (MS) recoveries for batch 340843 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) recoveries were within the acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
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 Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: TW-04
Date Collected: 05/03/16 10:20
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 06:13	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 06:13	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 06:13	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 06:13	1
Trichloroethene	ND		1.00		ug/L			05/11/16 06:13	1
Vinyl chloride	ND		1.00		ug/L			05/11/16 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*05/11/16 06:13*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/11/16 06:13*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*05/11/16 06:13*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/11/16 06:13*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**179**		10.0		mg/L			05/18/16 11:15	10

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: OB-04
Date Collected: 05/03/16 12:10
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 06:43	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 06:43	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 06:43	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 06:43	1
Trichloroethene	**1.84**		1.00		ug/L			05/11/16 06:43	1
Vinyl chloride	**8.03**		1.00		ug/L			05/11/16 06:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*05/11/16 06:43*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/11/16 06:43*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*05/11/16 06:43*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*05/11/16 06:43*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: OB-08
Date Collected: 05/03/16 13:50
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 07:13	1
cis-1,2-Dichloroethene	**10.7**		1.00		ug/L			05/11/16 07:13	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 07:13	1
trans-1,2-Dichloroethene	**13.4**		1.00		ug/L			05/11/16 07:13	1
Trichloroethene	ND		1.00		ug/L			05/11/16 07:13	1
Vinyl chloride	**67.5**		1.00		ug/L			05/11/16 07:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*05/11/16 07:13*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/11/16 07:13*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*05/11/16 07:13*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/11/16 07:13*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: OB-06
Date Collected: 05/03/16 15:30
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.60		1.00		ug/L			05/11/16 07:43	1
cis-1,2-Dichloroethene	10.6		1.00		ug/L			05/11/16 07:43	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 07:43	1
trans-1,2-Dichloroethene	1.30		1.00		ug/L			05/11/16 07:43	1
Trichloroethene	40.4		1.00		ug/L			05/11/16 07:43	1
Vinyl chloride	8.50		1.00		ug/L			05/11/16 07:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*05/11/16 07:43*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/11/16 07:43*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*05/11/16 07:43*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*05/11/16 07:43*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	122		10.0		mg/L			05/18/16 11:49	10

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: TW-17
Date Collected: 05/03/16 17:30
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 08:13	1
cis-1,2-Dichloroethene	**170**		1.00		ug/L			05/11/16 08:13	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 08:13	1
trans-1,2-Dichloroethene	**2.95**		1.00		ug/L			05/11/16 08:13	1
Trichloroethene	**13.5**		1.00		ug/L			05/11/16 08:13	1
Vinyl chloride	**84.4**		1.00		ug/L			05/11/16 08:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*05/11/16 08:13*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/11/16 08:13*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*05/11/16 08:13*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/11/16 08:13*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**34.6**		1.00		mg/L			05/17/16 01:51	1

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: BR-15
Date Collected: 05/04/16 10:25
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 08:43	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 08:43	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 08:43	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 08:43	1
Trichloroethene	ND		1.00		ug/L			05/11/16 08:43	1
Vinyl chloride	**1.42**		1.00		ug/L			05/11/16 08:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*05/11/16 08:43*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/11/16 08:43*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*05/11/16 08:43*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/11/16 08:43*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: TW-20
Date Collected: 05/04/16 11:35
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 09:13	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 09:13	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 09:13	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 09:13	1
Trichloroethene	**26.3**		1.00		ug/L			05/11/16 09:13	1
Vinyl chloride	ND		1.00		ug/L			05/11/16 09:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/11/16 09:13*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/11/16 09:13*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*05/11/16 09:13*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/11/16 09:13*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: TW-09
Date Collected: 05/04/16 13:05
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 09:43	1
cis-1,2-Dichloroethene	**16.8**		1.00		ug/L			05/11/16 09:43	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 09:43	1
trans-1,2-Dichloroethene	**6.85**		1.00		ug/L			05/11/16 09:43	1
Trichloroethene	**10.8**		1.00		ug/L			05/11/16 09:43	1
Vinyl chloride	**6.90**		1.00		ug/L			05/11/16 09:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/11/16 09:43*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/11/16 09:43*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*05/11/16 09:43*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/11/16 09:43*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: W-5
Date Collected: 05/04/16 14:45
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 10:13	1
cis-1,2-Dichloroethene	**41.6**		1.00		ug/L			05/11/16 10:13	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 10:13	1
trans-1,2-Dichloroethene	**7.24**		1.00		ug/L			05/11/16 10:13	1
Trichloroethene	**85.6**		1.00		ug/L			05/11/16 10:13	1
Vinyl chloride	**26.9**		1.00		ug/L			05/11/16 10:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*05/11/16 10:13*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/11/16 10:13*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*05/11/16 10:13*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/11/16 10:13*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**125**		10.0		mg/L			05/18/16 12:07	10

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: BR-03
Date Collected: 05/04/16 17:00
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**1.58**		1.00		ug/L			05/12/16 00:56	1
cis-1,2-Dichloroethene	**79.1**		1.00		ug/L			05/12/16 00:56	1
Tetrachloroethene	ND		1.00		ug/L			05/12/16 00:56	1
trans-1,2-Dichloroethene	**1.19**		1.00		ug/L			05/12/16 00:56	1
Trichloroethene	**225**		1.00		ug/L			05/12/16 00:56	1
Vinyl chloride	ND		1.00		ug/L			05/12/16 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*05/12/16 00:56*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*05/12/16 00:56*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*05/12/16 00:56*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/12/16 00:56*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: QATB-01
Date Collected: 05/03/16 00:01
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 04:43	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 04:43	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 04:43	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 04:43	1
Trichloroethene	ND		1.00		ug/L			05/11/16 04:43	1
Vinyl chloride	ND		1.00		ug/L			05/11/16 04:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*05/11/16 04:43*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/11/16 04:43*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*05/11/16 04:43*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/11/16 04:43*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: BR-10
Date Collected: 05/05/16 09:20
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 10:43	1
cis-1,2-Dichloroethene	**257**		1.00		ug/L			05/11/16 10:43	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 10:43	1
trans-1,2-Dichloroethene	**43.3**		1.00		ug/L			05/11/16 10:43	1
Trichloroethene	**233**		1.00		ug/L			05/11/16 10:43	1
Vinyl chloride	ND		1.00		ug/L			05/11/16 10:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/11/16 10:43*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/11/16 10:43*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*05/11/16 10:43*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*05/11/16 10:43*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: BR-04
Date Collected: 05/05/16 10:20
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**6.63**		5.00		ug/L			05/11/16 20:25	5
cis-1,2-Dichloroethene	**831**		5.00		ug/L			05/11/16 20:25	5
Tetrachloroethene	ND		5.00		ug/L			05/11/16 20:25	5
trans-1,2-Dichloroethene	**51.0**		5.00		ug/L			05/11/16 20:25	5
Trichloroethene	**354**		5.00		ug/L			05/11/16 20:25	5
Vinyl chloride	**48.5**		5.00		ug/L			05/11/16 20:25	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*05/11/16 20:25*	*5*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/11/16 20:25*	*5*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*05/11/16 20:25*	*5*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/11/16 20:25*	*5*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: BR-02
Date Collected: 05/05/16 11:45
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**2.59**		1.00		ug/L			05/11/16 11:13	1
cis-1,2-Dichloroethene	**335**		10.0		ug/L			05/12/16 13:46	10
Tetrachloroethene	ND		1.00		ug/L			05/11/16 11:13	1
trans-1,2-Dichloroethene	**15.3**		1.00		ug/L			05/11/16 11:13	1
Trichloroethene	**196**		1.00		ug/L			05/11/16 11:13	1
Vinyl chloride	**12.6**		1.00		ug/L			05/11/16 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*05/11/16 11:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*05/12/16 13:46*	*10*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/11/16 11:13*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*05/12/16 13:46*	*10*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*05/11/16 11:13*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*05/12/16 13:46*	*10*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/11/16 11:13*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/12/16 13:46*	*10*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: BR-01
Date Collected: 05/05/16 13:10
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-15
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		5.00		ug/L			05/11/16 20:55	5
cis-1,2-Dichloroethene	**861**		5.00		ug/L			05/11/16 20:55	5
Tetrachloroethene	ND		5.00		ug/L			05/11/16 20:55	5
trans-1,2-Dichloroethene	**36.8**		5.00		ug/L			05/11/16 20:55	5
Trichloroethene	**13.0**		5.00		ug/L			05/11/16 20:55	5
Vinyl chloride	**302**		5.00		ug/L			05/11/16 20:55	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*05/11/16 20:55*	*5*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*05/11/16 20:55*	*5*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*05/11/16 20:55*	*5*
Toluene-d8 (Surr)	*99*		*70 - 130*		*05/11/16 20:55*	*5*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: QAFB-01
Date Collected: 05/05/16 13:30
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-16
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 05:43	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 05:43	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 05:43	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 05:43	1
Trichloroethene	ND		1.00		ug/L			05/11/16 05:43	1
Vinyl chloride	ND		1.00		ug/L			05/11/16 05:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*05/11/16 05:43*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*05/11/16 05:43*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*05/11/16 05:43*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/11/16 05:43*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: QARB-01
Date Collected: 05/05/16 13:55
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*05/11/16 05:13*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/11/16 05:13*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*05/11/16 05:13*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*05/11/16 05:13*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: DUP-01
Date Collected: 05/04/16 00:01
Date Received: 05/06/16 10:10

Lab Sample ID: 490-103266-18
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 11:43	1
cis-1,2-Dichloroethene	**42.9**		1.00		ug/L			05/11/16 11:43	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 11:43	1
trans-1,2-Dichloroethene	**7.55**		1.00		ug/L			05/11/16 11:43	1
Trichloroethene	**85.6**		1.00		ug/L			05/11/16 11:43	1
Vinyl chloride	**27.4**		1.00		ug/L			05/11/16 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*05/11/16 11:43*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/11/16 11:43*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*05/11/16 11:43*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/11/16 11:43*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-338847/7
Matrix: Water
Analysis Batch: 338847

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 03:13	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 03:13	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 03:13	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 03:13	1
Trichloroethene	ND		1.00		ug/L			05/11/16 03:13	1
Vinyl chloride	ND		1.00		ug/L			05/11/16 03:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*05/11/16 03:13*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*05/11/16 03:13*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*05/11/16 03:13*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/11/16 03:13*	*1*

Lab Sample ID: LCS 490-338847/4
Matrix: Water
Analysis Batch: 338847

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	24.13		ug/L		121	79 - 124
cis-1,2-Dichloroethene	20.0	18.37		ug/L		92	76 - 125
Tetrachloroethene	20.0	19.41		ug/L		97	80 - 126
trans-1,2-Dichloroethene	20.0	19.03		ug/L		95	79 - 126
Trichloroethene	20.0	19.17		ug/L		96	80 - 123
Vinyl chloride	20.0	20.18		ug/L		101	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: 490-103266-6 MS
Matrix: Water
Analysis Batch: 338847

Client Sample ID: BR-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		20.0	26.67		ug/L		133	54 - 150
cis-1,2-Dichloroethene	ND		20.0	19.87		ug/L		99	68 - 131
Tetrachloroethene	ND		20.0	20.64		ug/L		103	57 - 138
trans-1,2-Dichloroethene	ND		20.0	20.29		ug/L		101	59 - 143
Trichloroethene	ND		20.0	20.72		ug/L		102	63 - 135
Vinyl chloride	1.42		20.0	23.24		ug/L		109	57 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 490-103266-6 MS
Matrix: Water
Analysis Batch: 338847

Client Sample ID: BR-15
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: 490-103266-6 MSD
Matrix: Water
Analysis Batch: 338847

Client Sample ID: BR-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		20.0	25.70		ug/L		129	54 - 150	4	17
cis-1,2-Dichloroethene	ND		20.0	19.22		ug/L		96	68 - 131	3	17
Tetrachloroethene	ND		20.0	20.24		ug/L		101	57 - 138	2	16
trans-1,2-Dichloroethene	ND		20.0	19.88		ug/L		99	59 - 143	2	16
Trichloroethene	ND		20.0	20.27		ug/L		100	63 - 135	2	17
Vinyl chloride	1.42		20.0	22.15		ug/L		104	57 - 150	5	17

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 490-339073/12
Matrix: Water
Analysis Batch: 339073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 19:24	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 19:24	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 19:24	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 19:24	1
Trichloroethene	ND		1.00		ug/L			05/11/16 19:24	1
Vinyl chloride	ND		1.00		ug/L			05/11/16 19:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*05/11/16 19:24*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*05/11/16 19:24*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*05/11/16 19:24*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*05/11/16 19:24*	*1*

Lab Sample ID: LCS 490-339073/8
Matrix: Water
Analysis Batch: 339073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	23.93		ug/L		120	79 - 124
cis-1,2-Dichloroethene	20.0	19.65		ug/L		98	76 - 125
Tetrachloroethene	20.0	21.10		ug/L		105	80 - 126
trans-1,2-Dichloroethene	20.0	19.95		ug/L		100	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-339073/8
Matrix: Water
Analysis Batch: 339073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Trichloroethene			20.0	19.41		ug/L		97	80 - 123		
Vinyl chloride			20.0	21.05		ug/L		105	68 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 490-339073/9
Matrix: Water
Analysis Batch: 339073

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			20.0	21.39		ug/L		107	79 - 124	11	20
cis-1,2-Dichloroethene			20.0	17.77		ug/L		89	76 - 125	10	15
Tetrachloroethene			20.0	18.78		ug/L		94	80 - 126	12	17
trans-1,2-Dichloroethene			20.0	17.82		ug/L		89	79 - 126	11	15
Trichloroethene			20.0	17.44		ug/L		87	80 - 123	11	14
Vinyl chloride			20.0	18.44		ug/L		92	68 - 120	13	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: 490-103429-B-1 MS
Matrix: Water
Analysis Batch: 339073

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene	ND		20.0	22.04		ug/L		110	54 - 150		
cis-1,2-Dichloroethene	ND		20.0	17.90		ug/L		90	68 - 131		
Tetrachloroethene	ND		20.0	19.23		ug/L		96	57 - 138		
trans-1,2-Dichloroethene	ND		20.0	18.59		ug/L		93	59 - 143		
Trichloroethene	ND		20.0	17.41		ug/L		87	63 - 135		
Vinyl chloride	ND		20.0	19.72		ug/L		99	57 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 490-103429-C-1 MSD
Matrix: Water
Analysis Batch: 339073

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		20.0	22.15		ug/L		111	54 - 150	0	17
cis-1,2-Dichloroethene	ND		20.0	17.72		ug/L		89	68 - 131	1	17
Tetrachloroethene	ND		20.0	18.84		ug/L		94	57 - 138	2	16
trans-1,2-Dichloroethene	ND		20.0	18.49		ug/L		92	59 - 143	1	16
Trichloroethene	ND		20.0	17.51		ug/L		88	63 - 135	1	17
Vinyl chloride	ND		20.0	19.02		ug/L		95	57 - 150	4	17

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 490-339078/8
Matrix: Water
Analysis Batch: 339078

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/11/16 16:59	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 16:59	1
Tetrachloroethene	ND		1.00		ug/L			05/11/16 16:59	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/11/16 16:59	1
Trichloroethene	ND		1.00		ug/L			05/11/16 16:59	1
Vinyl chloride	ND		1.00		ug/L			05/11/16 16:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*05/11/16 16:59*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/11/16 16:59*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*05/11/16 16:59*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*05/11/16 16:59*	*1*

Lab Sample ID: LCS 490-339078/3
Matrix: Water
Analysis Batch: 339078

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	50.0	42.95		ug/L		86	79 - 124
cis-1,2-Dichloroethene	50.0	43.69		ug/L		87	76 - 125
Tetrachloroethene	50.0	43.59		ug/L		87	80 - 126
trans-1,2-Dichloroethene	50.0	41.08		ug/L		82	79 - 126
Trichloroethene	50.0	44.42		ug/L		89	80 - 123
Vinyl chloride	50.0	44.08		ug/L		88	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-339078/3
Matrix: Water
Analysis Batch: 339078

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 490-339078/4
Matrix: Water
Analysis Batch: 339078

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			50.0	42.45		ug/L		85	79 - 124	1	20
cis-1,2-Dichloroethene			50.0	43.32		ug/L		87	76 - 125	1	15
Tetrachloroethene			50.0	43.21		ug/L		86	80 - 126	1	17
trans-1,2-Dichloroethene			50.0	40.40		ug/L		81	79 - 126	2	15
Trichloroethene			50.0	44.18		ug/L		88	80 - 123	1	14
Vinyl chloride			50.0	43.74		ug/L		87	68 - 120	1	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 490-339314/9
Matrix: Water
Analysis Batch: 339314

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			05/12/16 13:16	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			05/12/16 13:16	1
Tetrachloroethene	ND		1.00		ug/L			05/12/16 13:16	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			05/12/16 13:16	1
Trichloroethene	ND		1.00		ug/L			05/12/16 13:16	1
Vinyl chloride	ND		1.00		ug/L			05/12/16 13:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*05/12/16 13:16*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/12/16 13:16*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*05/12/16 13:16*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/12/16 13:16*	*1*

Lab Sample ID: LCS 490-339314/3
Matrix: Water
Analysis Batch: 339314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene			20.0	24.48		ug/L		122	79 - 124
cis-1,2-Dichloroethene			20.0	19.43		ug/L		97	76 - 125
Tetrachloroethene			20.0	20.95		ug/L		105	80 - 126
trans-1,2-Dichloroethene			20.0	19.95		ug/L		100	79 - 126

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-339314/3
Matrix: Water
Analysis Batch: 339314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Trichloroethene			20.0	19.40		ug/L		97	80 - 123		
Vinyl chloride			20.0	22.46		ug/L		112	68 - 120		

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

Lab Sample ID: LCSD 490-339314/4
Matrix: Water
Analysis Batch: 339314

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			20.0	23.73		ug/L		119	79 - 124	3	20
cis-1,2-Dichloroethene			20.0	19.19		ug/L		96	76 - 125	1	15
Tetrachloroethene			20.0	20.32		ug/L		102	80 - 126	3	17
trans-1,2-Dichloroethene			20.0	19.33		ug/L		97	79 - 126	3	15
Trichloroethene			20.0	19.07		ug/L		95	80 - 123	2	14
Vinyl chloride			20.0	21.93		ug/L		110	68 - 120	2	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: 490-103269-B-3 MS
Matrix: Water
Analysis Batch: 339314

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene	ND		20.0	23.04		ug/L		115	54 - 150		
cis-1,2-Dichloroethene	ND		20.0	17.96		ug/L		90	68 - 131		
Tetrachloroethene	ND		20.0	20.04		ug/L		100	57 - 138		
trans-1,2-Dichloroethene	ND		20.0	18.70		ug/L		93	59 - 143		
Trichloroethene	ND		20.0	17.95		ug/L		90	63 - 135		
Vinyl chloride	ND		20.0	21.49		ug/L		107	57 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 490-103269-C-3 MSD
Matrix: Water
Analysis Batch: 339314

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		20.0	23.88		ug/L		119	54 - 150	4	17
cis-1,2-Dichloroethene	ND		20.0	18.54		ug/L		93	68 - 131	3	17
Tetrachloroethene	ND		20.0	20.49		ug/L		102	57 - 138	2	16
trans-1,2-Dichloroethene	ND		20.0	19.40		ug/L		97	59 - 143	4	16
Trichloroethene	ND		20.0	18.69		ug/L		93	63 - 135	4	17
Vinyl chloride	ND		20.0	22.55		ug/L		113	57 - 150	5	17

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-340468/3
Matrix: Water
Analysis Batch: 340468

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			05/16/16 23:51	1

Lab Sample ID: LCS 490-340468/4
Matrix: Water
Analysis Batch: 340468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.395		mg/L		94	90 - 110

Lab Sample ID: LCSD 490-340468/5
Matrix: Water
Analysis Batch: 340468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	10.0	9.485		mg/L		95	90 - 110	1	20

Lab Sample ID: 490-103230-A-2 MS
Matrix: Water
Analysis Batch: 340468

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	3.19	F1	2.00	4.403	F1	mg/L		60	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 490-340843/3
Matrix: Water
Analysis Batch: 340843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			05/18/16 10:24	1

Lab Sample ID: LCS 490-340843/4
Matrix: Water
Analysis Batch: 340843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	9.704		mg/L		97	90 - 110

Lab Sample ID: LCSD 490-340843/5
Matrix: Water
Analysis Batch: 340843

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	10.0	9.644		mg/L		96	90 - 110	1	20

Lab Sample ID: 490-103266-1 MS
Matrix: Water
Analysis Batch: 340843

Client Sample ID: TW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	179		20.0	78.86	4	mg/L		-501	80 - 120

GC/MS VOA

Analysis Batch: 338847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-103266-1	TW-04	Total/NA	Water	8260C	
490-103266-2	OB-04	Total/NA	Water	8260C	
490-103266-3	OB-08	Total/NA	Water	8260C	
490-103266-4	OB-06	Total/NA	Water	8260C	
490-103266-5	TW-17	Total/NA	Water	8260C	
490-103266-6	BR-15	Total/NA	Water	8260C	
490-103266-6 MS	BR-15	Total/NA	Water	8260C	
490-103266-6 MSD	BR-15	Total/NA	Water	8260C	
490-103266-7	TW-20	Total/NA	Water	8260C	
490-103266-8	TW-09	Total/NA	Water	8260C	
490-103266-9	W-5	Total/NA	Water	8260C	
490-103266-11	QATB-01	Total/NA	Water	8260C	
490-103266-12	BR-10	Total/NA	Water	8260C	
490-103266-14	BR-02	Total/NA	Water	8260C	
490-103266-16	QAFB-01	Total/NA	Water	8260C	
490-103266-17	QARB-01	Total/NA	Water	8260C	
490-103266-18	DUP-01	Total/NA	Water	8260C	
LCS 490-338847/4	Lab Control Sample	Total/NA	Water	8260C	
MB 490-338847/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 339073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-103266-13	BR-04	Total/NA	Water	8260C	
490-103266-15	BR-01	Total/NA	Water	8260C	
490-103429-B-1 MS	Matrix Spike	Total/NA	Water	8260C	
490-103429-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	
LCS 490-339073/8	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-339073/9	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 490-339073/12	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 339078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-103266-10	BR-03	Total/NA	Water	8260C	
LCS 490-339078/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-339078/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 490-339078/8	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 339314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-103266-14	BR-02	Total/NA	Water	8260C	
490-103269-B-3 MS	Matrix Spike	Total/NA	Water	8260C	
490-103269-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	
LCS 490-339314/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-339314/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 490-339314/9	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 340468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-103230-A-2 MS	Matrix Spike	Total/NA	Water	300.0	
490-103266-5	TW-17	Total/NA	Water	300.0	
LCS 490-340468/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 490-340468/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 490-340468/3	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 340843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-103266-1	TW-04	Total/NA	Water	300.0	
490-103266-1 MS	TW-04	Total/NA	Water	300.0	
490-103266-4	OB-06	Total/NA	Water	300.0	
490-103266-9	W-5	Total/NA	Water	300.0	
LCS 490-340843/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 490-340843/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 490-340843/3	Method Blank	Total/NA	Water	300.0	

Client Sample ID: TW-04 — **Lab Sample ID: 490-103266-1**
Date Collected: 05/03/16 10:20 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 06:13	KS	TAL NSH
Total/NA	Analysis	300.0		10	10 mL		340843	05/18/16 11:15	JHS	TAL NSH

Client Sample ID: OB-04 — **Lab Sample ID: 490-103266-2**
Date Collected: 05/03/16 12:10 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 06:43	KS	TAL NSH

Client Sample ID: OB-08 — **Lab Sample ID: 490-103266-3**
Date Collected: 05/03/16 13:50 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 07:13	KS	TAL NSH

Client Sample ID: OB-06 — **Lab Sample ID: 490-103266-4**
Date Collected: 05/03/16 15:30 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 07:43	KS	TAL NSH
Total/NA	Analysis	300.0		10	10 mL		340843	05/18/16 11:49	JHS	TAL NSH

Client Sample ID: TW-17 — **Lab Sample ID: 490-103266-5**
Date Collected: 05/03/16 17:30 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 08:13	KS	TAL NSH
Total/NA	Analysis	300.0		1	10 mL		340468	05/17/16 01:51	LDC	TAL NSH

Client Sample ID: BR-15 — **Lab Sample ID: 490-103266-6**
Date Collected: 05/04/16 10:25 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 08:43	KS	TAL NSH

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Client Sample ID: TW-20

Lab Sample ID: 490-103266-7

Date Collected: 05/04/16 11:35
Matrix: Water
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 09:13	KS	TAL NSH

Client Sample ID: TW-09

Lab Sample ID: 490-103266-8

Date Collected: 05/04/16 13:05
Matrix: Water
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 09:43	KS	TAL NSH

Client Sample ID: W-5

Lab Sample ID: 490-103266-9

Date Collected: 05/04/16 14:45
Matrix: Water
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 10:13	KS	TAL NSH
Total/NA	Analysis	300.0		10	10 mL		340843	05/18/16 12:07	JHS	TAL NSH

Client Sample ID: BR-03

Lab Sample ID: 490-103266-10

Date Collected: 05/04/16 17:00
Matrix: Water
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	339078	05/12/16 00:56	KS	TAL NSH

Client Sample ID: QATB-01

Lab Sample ID: 490-103266-11

Date Collected: 05/03/16 00:01
Matrix: Water
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 04:43	KS	TAL NSH

Client Sample ID: BR-10

Lab Sample ID: 490-103266-12

Date Collected: 05/05/16 09:20
Matrix: Water
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 10:43	KS	TAL NSH

Client Sample ID: BR-04 — **Lab Sample ID: 490-103266-13**
Date Collected: 05/05/16 10:20 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	10 mL	10 mL	339073	05/11/16 20:25	NC	TAL NSH

Client Sample ID: BR-02 — **Lab Sample ID: 490-103266-14**
Date Collected: 05/05/16 11:45 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 11:13	KS	TAL NSH
Total/NA	Analysis	8260C		10	10 mL	10 mL	339314	05/12/16 13:46	NC	TAL NSH

Client Sample ID: BR-01 — **Lab Sample ID: 490-103266-15**
Date Collected: 05/05/16 13:10 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	10 mL	10 mL	339073	05/11/16 20:55	NC	TAL NSH

Client Sample ID: QAFB-01 — **Lab Sample ID: 490-103266-16**
Date Collected: 05/05/16 13:30 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 05:43	KS	TAL NSH

Client Sample ID: QARB-01 — **Lab Sample ID: 490-103266-17**
Date Collected: 05/05/16 13:55 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 05:13	KS	TAL NSH

Client Sample ID: DUP-01 — **Lab Sample ID: 490-103266-18**
Date Collected: 05/04/16 00:01 — **Matrix: Water**
Date Received: 05/06/16 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	338847	05/11/16 11:43	KS	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-103266-1

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	11342	03-31-17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-103266 Chain of Custody

Cooler Received/Opened On 5/6/2016 @ 1010

Time Samples Removed From Cooler_____ Time Samples Placed In Storage_____ (2 Hour Window)

1. Tracking # 8812 (last 4 digits, FedEx) Courier: _FedEx_

IR Gun ID 12080142 pH Strip Lot HC564992 Chlorine Strip Lot 1211515B

2. Temperature of rep. sample or temp blank when opened: 2.3 *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: 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) AJF

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) DA

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) DA

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) DA

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

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

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 12/15/15

Chain of Custody Record

Loc: 490
103266

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/24/2016

Client Information	Sampler: Noel Garland	Lab PM: Brown, Shali	Ca	COC No: 490-513-112.2
Client Contact: Mr. Joe Deatherage	Phone: 865-202-9213	E-Mail: shali.brown@testamericainc.com		Page: 1 of 2
Company: AMEC Environment & Infrastructure, Inc.		Analysis Requested		Job #
Address: ~~9725 Cogdill Road~~ 2030 Falling Waters Rd. Suite 300	Due Date Requested: STA			Preservation Codes:
City: Knoxville	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)
State, Zip: TN, ~~37932~~ 37922				Other:
Phone: 865-218-1049(Tel)	PO #: C012605598			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 30315 2028			
Site: Rochester, NY	SSOW#:			

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B TCE PCE 1,1-DCE cis/trans 1,2 DCE vinyl chloride	Sulfate 300.0			624 VOC's standard list									Total Number of containers	Special Instructions/Note:
	Preservation Code:							A	N			A										
1	TW-04	05/03/16	1020	G	W			X	X													
2	OB-04		1210					X														
3	OB-08		1350					X														
4	OB-06		1530					X	X													
5	TW-17		1730					X	X													
6	BR-15	05/04/16	1025					X														
7	TW-20		1135					X														
8	TW-09		1305					X														
9	W-5		1445					X	X													
10	BR-03		1700					X														
11	~~Trip Blank~~ QATB-01							X														Lab Provided

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	05/05/2016 1610	AMEC FW	[signature]	5-6-16 1010	TAN
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.3

Chain of Custody Record

Loc: 490
103266

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

5/24/2016

Client Information	Sampler: Noel Garland	Lab PM: Brown, Shali	Carrie	COC No: 490-513-112.2
Client Contact: Mr. Joe Deatherage	Phone: 865-202-9213	E-Mail: shali.brown@testamericainc.com		Page: 2 of 2
Company: AMEC Environment & Infrastructure, Inc.		Analysis Requested		Job #:
Address: 2030 Falling Waters Rd Suite 300 ~~9725 Cogdill Road~~	Due Date Requested: STANDARD			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
City: Knoxville	TAT Requested (days):			
State, Zip: TN, ~~37932~~ 37922				
Phone: 865-218-1049(Tel)	PO #: C012605598			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 30311520 28			
Site: Rochester, NY	SSOW#:			Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B TCE PCE 1,1-DCE cis/trans 1,2 DCE vinyl chloride	Sulfate 300.0			624 VOC's standard list									Total Number of containers	Special Instructions/Note:
				Preservation Code				A	N			A										
12	BR-10	05/05/16	0920	G	W			X														
13	BR-04		1020					X														
14	BR-02		1145					X														
15	BR-01		1310					X														
16	QAFB-01		1330					X														
17	QARB-01		1355					X														
18	BR-15 MS	05/04/16	1025					X														Matrix Spike
19	BR-15 MSD	05/04/16	1025					X														matrix spike dup.
20	Dup-01	05/04/16	—					X														

DA 5-9-16

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	05/05/16 1610	Amec FW	[signature]	5-6-16 1010	TAN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.3

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 490-103266-1

Login Number: 103266

List Source: TestAmerica Nashville

List Number: 1

Creator: Armstrong, Daniel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

OCTOBER 2016
LABORATORY REPORTS AND
CHAIN-OF-CUSTODY FORMS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

November 8, 2016

Joe Deatherage
AMEC Environment & Infrastructure, Inc.
9725 Cogdill Road
Knoxville, TN 37923
USA

RE: **FRM. TAYLOR INSTRUMENTS**
Pace Workorder: 20800

Dear Joe Deatherage:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, October 28, 2016. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 11/08/2016
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 20

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
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SAMPLE SUMMARY

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

Lab ID	Sample ID	Matrix	Date Collected	Date Received
208000001	TW-04	Water	10/25/2016 10:30	10/28/2016 11:15
208000002	OB-04	Water	10/25/2016 13:30	10/28/2016 11:15
208000003	OB-08	Water	10/26/2016 10:00	10/28/2016 11:15
208000004	OB-06	Water	10/26/2016 11:25	10/28/2016 11:15
208000005	TW-17	Water	10/26/2016 16:30	10/28/2016 11:15
208000006	W-5	Water	10/26/2016 18:00	10/28/2016 11:15

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
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PROJECT SUMMARY

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

Workorder Comments

The container pH for samples 20800 (0005) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method RSK175.

Batch Comments

Batch: EDON/3145 - Low Level Volatile Fatty Acids

The matrix spike and/or spike duplicate, recovery or relative percent difference; accuracy influenced by the concentration of the reference sample 207810001. Analyte Lactic and Acetic acids. Batch acceptance based on laboratory control sample recovery.

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

Lab ID: **208000001** Date Received: 10/28/2016 11:15 Matrix: Water

Sample ID: **TW-04** Date Collected: 10/25/2016 10:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - PAES								
Analysis Desc: AM23G	Analytical Method: AM23G							
Lactic Acid	**0.011J**	mg/l	0.20	0.0060	1	11/2/2016 01:41	KB	M3,M5
Acetic Acid	**0.032J**	mg/l	0.10	0.0070	1	11/2/2016 01:41	KB	M3,B,M5
Propionic Acid	**0.10 U**	mg/l	0.10	0.0090	1	11/2/2016 01:41	KB	
Formic Acid	**0.053J**	mg/l	0.10	0.0050	1	11/2/2016 01:41	KB	B
Butyric Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 01:41	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 01:41	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 01:41	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	11/2/2016 01:41	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	11/2/2016 01:41	KB	
Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0070	1	11/2/2016 01:41	KB	
RISK - PAES								
Analysis Desc: EPA RSK175	Analytical Method: EPA RSK175							
Methane	**2300**	ug/l	25	0.95	50	11/4/2016 11:48	AK	d,B
Ethene	**0.20 U**	ug/l	0.20	0.0070	1	11/3/2016 09:07	AK	

CERTIFICATE OF ANALYSIS

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Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

Lab ID: **208000002** Date Received: 10/28/2016 11:15 Matrix: Water

Sample ID: **OB-04** Date Collected: 10/25/2016 13:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - PAES								
Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	**0.0091J**	mg/l	0.20	0.0060	1	11/2/2016 02:35	KB	M3,M5
Acetic Acid	**0.82**	mg/l	0.10	0.0070	1	11/2/2016 02:35	KB	M3,B,M5
Propionic Acid	**0.011J**	mg/l	0.10	0.0090	1	11/2/2016 02:35	KB	
Formic Acid	**0.050J**	mg/l	0.10	0.0050	1	11/2/2016 02:35	KB	B
Butyric Acid	**0.030J**	mg/l	0.10	0.0070	1	11/2/2016 02:35	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 02:35	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 02:35	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	11/2/2016 02:35	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	11/2/2016 02:35	KB	
Hexanoic Acid	**0.012J**	mg/l	0.20	0.0070	1	11/2/2016 02:35	KB	

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

Lab ID: **208000003** Date Received: 10/28/2016 11:15 Matrix: Water

Sample ID: **OB-08** Date Collected: 10/26/2016 10:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - PAES								
Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	**0.015J**	mg/l	0.20	0.0060	1	11/2/2016 03:28	KB	M3,M5
Acetic Acid	**0.25**	mg/l	0.10	0.0070	1	11/2/2016 03:28	KB	M3,B,M5
Propionic Acid	**0.10 U**	mg/l	0.10	0.0090	1	11/2/2016 03:28	KB	
Formic Acid	**0.041J**	mg/l	0.10	0.0050	1	11/2/2016 03:28	KB	B
Butyric Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 03:28	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 03:28	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 03:28	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	11/2/2016 03:28	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	11/2/2016 03:28	KB	
Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0070	1	11/2/2016 03:28	KB	

CERTIFICATE OF ANALYSIS

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Pittsburgh, PA 15238
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ANALYTICAL RESULTS

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

Lab ID: **208000004** Date Received: 10/28/2016 11:15 Matrix: Water

Sample ID: **OB-06** Date Collected: 10/26/2016 11:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - PAES								
Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	**0.011J**	mg/l	0.20	0.0060	1	11/2/2016 04:21	KB	M3,M5
Acetic Acid	**0.67**	mg/l	0.10	0.0070	1	11/2/2016 04:21	KB	M3,B,M5
Propionic Acid	**0.017J**	mg/l	0.10	0.0090	1	11/2/2016 04:21	KB	
Formic Acid	**0.039J**	mg/l	0.10	0.0050	1	11/2/2016 04:21	KB	B
Butyric Acid	**0.0080J**	mg/l	0.10	0.0070	1	11/2/2016 04:21	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 04:21	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 04:21	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	11/2/2016 04:21	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	11/2/2016 04:21	KB	
Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0070	1	11/2/2016 04:21	KB	
RISK - PAES								
Analysis Desc: EPA RSK175		Analytical Method: EPA RSK175						
Methane	**15000**	ug/l	50	1.9	100	11/4/2016 12:09	AK	d,B
Ethene	**4.3**	ug/l	0.20	0.0070	1	11/3/2016 09:17	AK	

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

Lab ID: **208000005** Date Received: 10/28/2016 11:15 Matrix: Water

Sample ID: **TW-17** Date Collected: 10/26/2016 16:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - PAES								
Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	**2.0 U**	mg/l	2.0	0.060	10	11/3/2016 06:24	KB	d
Acetic Acid	**23**	mg/l	1.0	0.070	10	11/3/2016 06:24	KB	d,B
Propionic Acid	**0.47**	mg/l	0.10	0.0090	1	11/2/2016 05:15	KB	
Formic Acid	**0.24**	mg/l	0.10	0.0050	1	11/2/2016 05:15	KB	B
Butyric Acid	**0.80**	mg/l	0.10	0.0070	1	11/2/2016 05:15	KB	
Pyruvic Acid	**0.057J**	mg/l	0.10	0.0070	1	11/2/2016 05:15	KB	
i-Pentanoic Acid	**0.11**	mg/l	0.10	0.0070	1	11/2/2016 05:15	KB	
Pentanoic Acid	**0.021J**	mg/l	0.10	0.0060	1	11/2/2016 05:15	KB	
i-Hexanoic Acid	**0.019J**	mg/l	0.20	0.0040	1	11/2/2016 05:15	KB	
Hexanoic Acid	**0.11J**	mg/l	0.20	0.0070	1	11/2/2016 05:15	KB	
RISK - PAES								
Analysis Desc: EPA RSK175		Analytical Method: EPA RSK175						
Methane	**20000**	ug/l	50	1.9	100	11/4/2016 12:31	AK	d,B
Ethene	**0.34**	ug/l	0.20	0.0070	1	11/3/2016 09:28	AK	

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

Lab ID: **208000006** Date Received: 10/28/2016 11:15 Matrix: Water

Sample ID: **W-5** Date Collected: 10/26/2016 18:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
EDonors - PAES								
Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	**0.010J**	mg/l	0.20	0.0060	1	11/2/2016 06:08	KB	M3,M5
Acetic Acid	**0.031J**	mg/l	0.10	0.0070	1	11/2/2016 06:08	KB	M3,B,M5
Propionic Acid	**0.10 U**	mg/l	0.10	0.0090	1	11/2/2016 06:08	KB	
Formic Acid	**0.067J**	mg/l	0.10	0.0050	1	11/2/2016 06:08	KB	B
Butyric Acid	**0.0080J**	mg/l	0.10	0.0070	1	11/2/2016 06:08	KB	
Pyruvic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 06:08	KB	
i-Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0070	1	11/2/2016 06:08	KB	
Pentanoic Acid	**0.10 U**	mg/l	0.10	0.0060	1	11/2/2016 06:08	KB	
i-Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0040	1	11/2/2016 06:08	KB	
Hexanoic Acid	**0.20 U**	mg/l	0.20	0.0070	1	11/2/2016 06:08	KB	
RISK - PAES								
Analysis Desc: EPA RSK175		Analytical Method: EPA RSK175						
Methane	**3400**	ug/l	50	1.9	100	11/4/2016 12:50	AK	d,B
Ethene	**4.8**	ug/l	0.20	0.0070	1	11/3/2016 09:39	AK	

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS QUALIFIERS

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
B	The analyte was detected in the associated blank.
d	The analyte concentration was determined from a dilution.
M5	The matrix spike duplicate sample recovery was outside laboratory control limits.
M3	The matrix spike sample recovery was outside laboratory control limits.

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

QC Batch: EDON/3145 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 208000001, 208000002, 208000003, 208000004, 208000005, 208000006

METHOD BLANK: 45177

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.20 U	0.20	M3,M5
Acetic Acid	mg/l	0.024J	0.10	M3,B,M5
Propionic Acid	mg/l	0.10 U	0.10	
Formic Acid	mg/l	0.012J	0.10	B
Butyric Acid	mg/l	0.10 U	0.10	
Pyruvic Acid	mg/l	0.10 U	0.10	
i-Pentanoic Acid	mg/l	0.10 U	0.10	
Pentanoic Acid	mg/l	0.10 U	0.10	
i-Hexanoic Acid	mg/l	0.20 U	0.20	
Hexanoic Acid	mg/l	0.20 U	0.20	

LABORATORY CONTROL SAMPLE: 45178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.9	94	70-130	M3,M5
Acetic Acid	mg/l	2	1.9	97	70-130	M3,B,M5
Propionic Acid	mg/l	2	2.0	99	70-130	
Formic Acid	mg/l	2	1.8	90	70-130	B
Butyric Acid	mg/l	2	2.0	99	70-130	
Pyruvic Acid	mg/l	2	1.9	96	70-130	
i-Pentanoic Acid	mg/l	2	2.0	99	70-130	
Pentanoic Acid	mg/l	2	1.9	97	70-130	
i-Hexanoic Acid	mg/l	2	1.8	89	70-130	
Hexanoic Acid	mg/l	2	1.8	92	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 45179 45180 Original: 207810001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
EDonors											
Lactic Acid	mg/l	0.023	2	1.2	1.3	62	63	70-130	1.6	30	M3,M5

CERTIFICATE OF ANALYSIS

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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 45179 45180 Original: 207810001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acetic Acid	mg/l	32	2	0.10 U	0.10 U	-1590	-1590	70-130	0	30	M3,B,M5
Propionic Acid	mg/l	3.4	2	6.0	6.0	127	126	70-130	0.79	30	
Formic Acid	mg/l	0.098	2	1.9	1.9	90	90	70-130	0	30	B
Butyric Acid	mg/l	0.08	2	2.2	2.1	104	103	70-130	0.97	30	
Pyruvic Acid	mg/l	0.25	2	2.2	2.2	98	97	70-130	1	30	
i-Pentanoic Acid	mg/l	0.048	2	2.2	2.2	106	106	70-130	0	30	
Pentanoic Acid	mg/l	0.24	2	2.4	2.4	107	106	70-130	0.94	30	
i-Hexanoic Acid	mg/l	0	2	2.0	2.0	98	99	70-130	1	30	
Hexanoic Acid	mg/l	0.0095	2	2.3	2.3	116	116	70-130	0	30	

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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

QC Batch: DISG/5718 Analysis Method: EPA RSK175

QC Batch Method: EPA RSK175

Associated Lab Samples: 208000001, 208000004, 208000005, 208000006

METHOD BLANK: 45239

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Ethene	ug/l	0.20 U	0.20	

LABORATORY CONTROL SAMPLE & LCSD: 45240 45241

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Ethene	ug/l	78	82	75	105	97	85-115	7.9	20	

SAMPLE DUPLICATE: 45250 Original: 208030002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Ethene	ug/l	0.026	0.026	0	20	

SAMPLE DUPLICATE: 45251 Original: 208030004

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Ethene	ug/l	0.22	0.26	17	20	

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Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

QC Batch: DISG/5721 Analysis Method: EPA RSK175

QC Batch Method: EPA RSK175

Associated Lab Samples: 208000001, 208000004, 208000005, 208000006

METHOD BLANK: 45275

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.021J	0.50	B

LABORATORY CONTROL SAMPLE & LCSD: 45276 45277

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	44	45	44	101	99	85-115	2	20	B

SAMPLE DUPLICATE: 45278 Original: 208000001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	2300	2300	1.7	20	d,B

SAMPLE DUPLICATE: 45279 Original: 208000006

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	3400	3400	1.3	20	d,B

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Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

QC Batch: EDON/3151 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 208000005

METHOD BLANK: 45304

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.20 U	0.20	
Acetic Acid	mg/l	0.028J	0.10	B

LABORATORY CONTROL SAMPLE: 45305

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.9	94	70-130	
Acetic Acid	mg/l	2	1.9	97	70-130	B

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA QUALIFIERS

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

QUALITY CONTROL PARAMETER QUALIFIERS

B	The analyte was detected in the associated blank.
M3	The matrix spike sample recovery was outside laboratory control limits.
M5	The matrix spike duplicate sample recovery was outside laboratory control limits.
d	The analyte concentration was determined from a dilution.

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 20800 FRM. TAYLOR INSTRUMENTS

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
208000001	TW-04			AM23G	EDON/3145
208000002	OB-04			AM23G	EDON/3145
208000003	OB-08			AM23G	EDON/3145
208000004	OB-06			AM23G	EDON/3145
208000005	TW-17			AM23G	EDON/3145
208000006	W-5			AM23G	EDON/3145
208000001	TW-04			EPA RSK175	DISG/5718
208000004	OB-06			EPA RSK175	DISG/5718
208000005	TW-17			EPA RSK175	DISG/5718
208000006	W-5			EPA RSK175	DISG/5718
208000001	TW-04			EPA RSK175	DISG/5721
208000004	OB-06			EPA RSK175	DISG/5721
208000005	TW-17			EPA RSK175	DISG/5721
208000006	W-5			EPA RSK175	DISG/5721
208000005	TW-17			AM23G	EDON/3151

Pace Analytical®
www.pacelabs.com

220 William Pitt Way
Pittsburgh, PA 15238
412-826-5245

20802

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

008924

Section A Required Client Information:

Company:	Amec Foster Wheeler
Address:	2030 Falling Waters Rd
	Suite 300 Knoxville, TN 37922
Email To:	joe.deatherage@amecfw.com
Phone:	865-218-1049
Fax:	—
Requested Due Date/TAT:	STANDARD

Section B Required Project Information:

Report To:	Joe Deatherage
Copy To:	
Purchase Order No.:	
Project Name:	Former Taylor Instruments
Project Number:	303115 2078

Section C Invoice Information:

Attention:	Accounting
Company Name:	Amec Foster Wheeler
Address:	2030 Falling Waters Rd Knoxville, TN 37922
Pace Quote Reference:	C01260597
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test Y/N	VPA's (SM 6200)	methane/ethane	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	TW-04	WT	G	10/25		~~10/26~~	10:30		5						X		X		X	X		
2	OB-04					10/25	13:30		2								X		X			
3	OB-08					10/26	10:00		2								X		X			
4	OB-06					10/26	11:25		5						X		X		X	X		
5	TW-17					10/26	16:30		5						X		X		X	X		
6	~~EB~~ W-5					10/26	18:00		5						X		X		X	X		
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Noel Garland / Amec Foster Wheeler	10/27	16:00	KAD PAS	10/28	1115	4	Y	Y	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Noel Garland

SIGNATURE of SAMPLER: Noel Garland

DATE Signed (MM/DD/YY): 10/27/16

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

Client Name: Amec FW Project: Frm. Taylor Instruments Lab Work Order: 20800

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: (Yes) No

Tracking Number: 7844 7952 5688

Custody Seal on Cooler/Box Present: (Yes) No Seals Intact: (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None Ice Intact: (Yes) Melted

Cooler Temperature: 4°C Radiation Screened: Yes (No) Chain of Custody Present: (Yes) No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC	✓			
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by: LY Date: 10.28.16

Project Manager Review: RW Date: 10-28-16

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-115050-1
Client Project/Site: Former Taylor Instruments

For:
AMEC Foster Wheeler E & I, Inc
2030 Falling Waters Road
Ste 300
Knoxville, Tennessee 37922

Attn: Mr. Joe Deatherage

Authorized for release by:
11/11/2016 4:29:01 PM

Shali Brown, Project Manager II
(615)301-5031
shali.brown@testamericainc.com

Table of Contents

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-115050-1	TW-04	Water	10/25/16 10:30	10/28/16 09:40
490-115050-2	OB-04	Water	10/25/16 13:30	10/28/16 09:40
490-115050-3	BR-15	Water	10/25/16 16:45	10/28/16 09:40
490-115050-4	OB-08	Water	10/26/16 10:00	10/28/16 09:40
490-115050-5	OB-06	Water	10/26/16 11:25	10/28/16 09:40
490-115050-6	TW-09	Water	10/26/16 13:00	10/28/16 09:40
490-115050-7	TW-20	Water	10/26/16 14:20	10/28/16 09:40
490-115050-8	TW-17	Water	10/26/16 16:30	10/28/16 09:40
490-115050-9	W-5	Water	10/26/16 18:00	10/28/16 09:40
490-115050-10	DUP-01	Water	10/26/16 00:01	10/28/16 09:40
490-115050-11	BR-03	Water	10/27/16 09:20	10/28/16 09:40
490-115050-12	BR-10	Water	10/27/16 10:25	10/28/16 09:40
490-115050-13	BR-04	Water	10/27/16 11:32	10/28/16 09:40
490-115050-14	BR-02	Water	10/27/16 12:40	10/28/16 09:40
490-115050-15	BR-01	Water	10/27/16 14:00	10/28/16 09:40
490-115050-16	QATB-01	Water	10/27/16 14:20	10/28/16 09:40
490-115050-17	QARB-01	Water	10/27/16 14:30	10/28/16 09:40
490-115050-18	QAFB-01	Water	10/27/16 14:25	10/28/16 09:40

Job ID: 490-115050-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-115050-1

Comments
No additional comments.

Receipt
The samples were received on 10/28/2016 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8º C.

GC/MS VOA
Method(s) 8260C: The following sample was diluted due to the nature of the sample matrix: BR-01 (490-115050-15). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
Method(s) 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 490-382924 and 490-383417 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 300.0: The following samples was diluted due to the nature of the sample matrix: TW-04 (490-115050-1), OB-06 (490-115050-5) and W-5 (490-115050-9). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F2	MS/MSD RPD exceeds control limits

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
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 Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: TW-04
Date Collected: 10/25/16 10:30
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 03:02	1
cis-1,2-Dichloroethene	**2.67**		1.00		ug/L			11/08/16 03:02	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 03:02	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 03:02	1
Trichloroethene	ND		1.00		ug/L			11/08/16 03:02	1
Vinyl chloride	ND		1.00		ug/L			11/08/16 03:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*11/08/16 03:02*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/08/16 03:02*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*11/08/16 03:02*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/08/16 03:02*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**202**		20.0		mg/L			11/01/16 15:11	20

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: OB-04
Date Collected: 10/25/16 13:30
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 03:27	1
cis-1,2-Dichloroethene	**2.52**		1.00		ug/L			11/08/16 03:27	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 03:27	1
trans-1,2-Dichloroethene	**1.18**		1.00		ug/L			11/08/16 03:27	1
Trichloroethene	**1.97**		1.00		ug/L			11/08/16 03:27	1
Vinyl chloride	**17.6**		1.00		ug/L			11/08/16 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*11/08/16 03:27*	*1*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*		*11/08/16 03:27*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/08/16 03:27*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/08/16 03:27*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: BR-15
Date Collected: 10/25/16 16:45
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 03:52	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 03:52	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 03:52	1
trans-1,2-Dichloroethene	ND	F2	1.00		ug/L			11/08/16 03:52	1
Trichloroethene	ND		1.00		ug/L			11/08/16 03:52	1
Vinyl chloride	**3.00**		1.00		ug/L			11/08/16 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*11/08/16 03:52*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*11/08/16 03:52*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*11/08/16 03:52*	*1*
Toluene-d8 (Surr)	*111*		*70 - 130*		*11/08/16 03:52*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: OB-08
Date Collected: 10/26/16 10:00
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 04:17	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 04:17	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 04:17	1
trans-1,2-Dichloroethene	**3.72**		1.00		ug/L			11/08/16 04:17	1
Trichloroethene	ND		1.00		ug/L			11/08/16 04:17	1
Vinyl chloride	**3.29**		1.00		ug/L			11/08/16 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*11/08/16 04:17*	*1*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*		*11/08/16 04:17*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*11/08/16 04:17*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*11/08/16 04:17*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: OB-06
Date Collected: 10/26/16 11:25
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.57		1.00		ug/L			11/08/16 04:42	1
cis-1,2-Dichloroethene	19.3		1.00		ug/L			11/08/16 04:42	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 04:42	1
trans-1,2-Dichloroethene	1.70		1.00		ug/L			11/08/16 04:42	1
Trichloroethene	50.8		1.00		ug/L			11/08/16 04:42	1
Vinyl chloride	20.6		1.00		ug/L			11/08/16 04:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*11/08/16 04:42*	*1*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*		*11/08/16 04:42*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*11/08/16 04:42*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/08/16 04:42*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	200		20.0		mg/L			11/01/16 15:28	20

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: TW-09
Date Collected: 10/26/16 13:00
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 05:08	1
cis-1,2-Dichloroethene	**3.20**		1.00		ug/L			11/08/16 05:08	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 05:08	1
trans-1,2-Dichloroethene	**1.07**		1.00		ug/L			11/08/16 05:08	1
Trichloroethene	**5.31**		1.00		ug/L			11/08/16 05:08	1
Vinyl chloride	ND		1.00		ug/L			11/08/16 05:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 130*		*11/08/16 05:08*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*11/08/16 05:08*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*11/08/16 05:08*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*11/08/16 05:08*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: TW-20
Date Collected: 10/26/16 14:20
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 05:33	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 05:33	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 05:33	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 05:33	1
Trichloroethene	**18.6**		1.00		ug/L			11/08/16 05:33	1
Vinyl chloride	ND		1.00		ug/L			11/08/16 05:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*11/08/16 05:33*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*11/08/16 05:33*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*11/08/16 05:33*	*1*
Toluene-d8 (Surr)	*129*		*70 - 130*		*11/08/16 05:33*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: TW-17
Date Collected: 10/26/16 16:30
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 05:58	1
cis-1,2-Dichloroethene	**24.2**		1.00		ug/L			11/08/16 05:58	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 05:58	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 05:58	1
Trichloroethene	**1.07**		1.00		ug/L			11/08/16 05:58	1
Vinyl chloride	**4.26**		1.00		ug/L			11/08/16 05:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 130*		*11/08/16 05:58*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*11/08/16 05:58*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*11/08/16 05:58*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*11/08/16 05:58*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**12.6**		1.00		mg/L			11/01/16 15:46	1

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: W-5
Date Collected: 10/26/16 18:00
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 06:23	1
cis-1,2-Dichloroethene	**56.9**		1.00		ug/L			11/08/16 06:23	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 06:23	1
trans-1,2-Dichloroethene	**8.27**		1.00		ug/L			11/08/16 06:23	1
Trichloroethene	**104**		1.00		ug/L			11/08/16 06:23	1
Vinyl chloride	**27.3**		1.00		ug/L			11/08/16 06:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/08/16 06:23*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*11/08/16 06:23*	*1*
Dibromofluoromethane (Surr)	*92*		*70 - 130*		*11/08/16 06:23*	*1*
Toluene-d8 (Surr)	*114*		*70 - 130*		*11/08/16 06:23*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**126**		10.0		mg/L			11/01/16 16:25	10

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: DUP-01
Date Collected: 10/26/16 00:01
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 06:48	1
cis-1,2-Dichloroethene	**61.6**		1.00		ug/L			11/08/16 06:48	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 06:48	1
trans-1,2-Dichloroethene	**9.60**		1.00		ug/L			11/08/16 06:48	1
Trichloroethene	**109**		1.00		ug/L			11/08/16 06:48	1
Vinyl chloride	**27.8**		1.00		ug/L			11/08/16 06:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*11/08/16 06:48*	*1*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*		*11/08/16 06:48*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*11/08/16 06:48*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*		*11/08/16 06:48*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: BR-03
Date Collected: 10/27/16 09:20
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**2.17**		1.00		ug/L			11/08/16 07:13	1
cis-1,2-Dichloroethene	**27.1**		1.00		ug/L			11/08/16 07:13	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 07:13	1
trans-1,2-Dichloroethene	**1.32**		1.00		ug/L			11/08/16 07:13	1
Trichloroethene	**464**		10.0		ug/L			11/08/16 19:34	10
Vinyl chloride	ND		1.00		ug/L			11/08/16 07:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/08/16 07:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/08/16 19:34*	*10*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*11/08/16 07:13*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*11/08/16 19:34*	*10*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*11/08/16 07:13*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*11/08/16 19:34*	*10*
Toluene-d8 (Surr)	*108*		*70 - 130*		*11/08/16 07:13*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*11/08/16 19:34*	*10*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: BR-10
Date Collected: 10/27/16 10:25
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.50		1.00		ug/L			11/08/16 07:39	1
cis-1,2-Dichloroethene	345		5.00		ug/L			11/10/16 17:39	5
Tetrachloroethene	1.19		1.00		ug/L			11/08/16 07:39	1
trans-1,2-Dichloroethene	50.1		1.00		ug/L			11/08/16 07:39	1
Trichloroethene	154		5.00		ug/L			11/10/16 17:39	5
Vinyl chloride	2.11		1.00		ug/L			11/08/16 07:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/08/16 07:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*11/10/16 17:39*	*5*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*11/08/16 07:39*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*11/10/16 17:39*	*5*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*11/08/16 07:39*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*11/10/16 17:39*	*5*
Toluene-d8 (Surr)	*124*		*70 - 130*		*11/08/16 07:39*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*11/10/16 17:39*	*5*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: BR-04
Date Collected: 10/27/16 11:32
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**9.15**		1.00		ug/L			11/08/16 08:29	1
cis-1,2-Dichloroethene	**972**		10.0		ug/L			11/08/16 20:00	10
Tetrachloroethene	ND		1.00		ug/L			11/08/16 08:29	1
trans-1,2-Dichloroethene	**81.9**		1.00		ug/L			11/08/16 08:29	1
Trichloroethene	**441**		10.0		ug/L			11/08/16 20:00	10
Vinyl chloride	**62.0**		1.00		ug/L			11/08/16 08:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*11/08/16 08:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/08/16 20:00*	*10*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*		*11/08/16 08:29*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*11/08/16 20:00*	*10*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*11/08/16 08:29*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*11/08/16 20:00*	*10*
Toluene-d8 (Surr)	*87*		*70 - 130*		*11/08/16 08:29*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*11/08/16 20:00*	*10*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: BR-02
Date Collected: 10/27/16 12:40
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 08:04	1
cis-1,2-Dichloroethene	**30.3**		1.00		ug/L			11/10/16 18:05	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 08:04	1
trans-1,2-Dichloroethene	**1.65**		1.00		ug/L			11/08/16 08:04	1
Trichloroethene	**14.9**		1.00		ug/L			11/10/16 18:05	1
Vinyl chloride	ND		1.00		ug/L			11/08/16 08:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*11/08/16 08:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/10/16 18:05*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*11/08/16 08:04*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*11/10/16 18:05*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*11/08/16 08:04*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*11/10/16 18:05*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*11/08/16 08:04*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*11/10/16 18:05*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: BR-01
Date Collected: 10/27/16 14:00
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-15
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**2.50**		1.00		ug/L			11/08/16 08:54	1
cis-1,2-Dichloroethene	**787**		10.0		ug/L			11/08/16 20:26	10
Tetrachloroethene	ND		1.00		ug/L			11/08/16 08:54	1
trans-1,2-Dichloroethene	**30.0**		1.00		ug/L			11/08/16 08:54	1
Trichloroethene	**10.9**		10.0		ug/L			11/08/16 20:26	10
Vinyl chloride	**158**		10.0		ug/L			11/08/16 20:26	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*11/08/16 08:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/08/16 20:26*	*10*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*11/08/16 08:54*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*11/08/16 20:26*	*10*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*11/08/16 08:54*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/08/16 20:26*	*10*
Toluene-d8 (Surr)	*110*		*70 - 130*		*11/08/16 08:54*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*11/08/16 20:26*	*10*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: QATB-01
Date Collected: 10/27/16 14:20
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-16
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 01:46	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 01:46	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 01:46	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 01:46	1
Trichloroethene	ND		1.00		ug/L			11/08/16 01:46	1
Vinyl chloride	ND		1.00		ug/L			11/08/16 01:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/08/16 01:46*	*1*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*11/08/16 01:46*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/08/16 01:46*	*1*
Toluene-d8 (Surr)	*115*		*70 - 130*		*11/08/16 01:46*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: QARB-01
Date Collected: 10/27/16 14:30
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 02:37	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 02:37	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 02:37	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 02:37	1
Trichloroethene	ND		1.00		ug/L			11/08/16 02:37	1
Vinyl chloride	ND		1.00		ug/L			11/08/16 02:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/08/16 02:37*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/08/16 02:37*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/08/16 02:37*	*1*
Toluene-d8 (Surr)	*112*		*70 - 130*		*11/08/16 02:37*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: QAFB-01
Date Collected: 10/27/16 14:25
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-18
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 02:11	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 02:11	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 02:11	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 02:11	1
Trichloroethene	ND		1.00		ug/L			11/08/16 02:11	1
Vinyl chloride	ND		1.00		ug/L			11/08/16 02:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*		*11/08/16 02:11*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*11/08/16 02:11*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*11/08/16 02:11*	*1*
Toluene-d8 (Surr)	*119*		*70 - 130*		*11/08/16 02:11*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 490-384702/7
Matrix: Water
Analysis Batch: 384702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 00:56	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 00:56	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 00:56	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 00:56	1
Trichloroethene	ND		1.00		ug/L			11/08/16 00:56	1
Vinyl chloride	ND		1.00		ug/L			11/08/16 00:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*		*11/08/16 00:56*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*11/08/16 00:56*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/08/16 00:56*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*11/08/16 00:56*	*1*

Lab Sample ID: LCS 490-384702/3
Matrix: Water
Analysis Batch: 384702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			20.0	19.70		ug/L		98	79 - 124		
cis-1,2-Dichloroethene			20.0	18.49		ug/L		92	76 - 125		
Tetrachloroethene			20.0	19.96		ug/L		100	80 - 126		
trans-1,2-Dichloroethene			20.0	18.86		ug/L		94	79 - 126		
Trichloroethene			20.0	18.43		ug/L		92	80 - 123		
Vinyl chloride			20.0	16.78		ug/L		84	68 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*82*		*70 - 130*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 490-384702/4
Matrix: Water
Analysis Batch: 384702

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			20.0	17.49		ug/L		87	79 - 124	12	20
cis-1,2-Dichloroethene			20.0	20.28		ug/L		101	76 - 125	9	15
Tetrachloroethene			20.0	19.86		ug/L		99	80 - 126	0	17
trans-1,2-Dichloroethene			20.0	18.69		ug/L		93	79 - 126	1	15
Trichloroethene			20.0	19.22		ug/L		96	80 - 123	4	14
Vinyl chloride			20.0	18.17		ug/L		91	68 - 120	8	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 490-384702/4
Matrix: Water
Analysis Batch: 384702

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*111*		*70 - 130*

Lab Sample ID: 490-115050-3 MS
Matrix: Water
Analysis Batch: 384702

Client Sample ID: BR-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		50.0	56.21		ug/L		112	54 - 150
cis-1,2-Dichloroethene	ND		50.0	53.49		ug/L		105	68 - 131
Tetrachloroethene	ND		50.0	54.33		ug/L		109	57 - 138
trans-1,2-Dichloroethene	ND	F2	50.0	56.84		ug/L		114	59 - 143
Trichloroethene	ND		50.0	53.44		ug/L		107	63 - 135
Vinyl chloride	3.00		50.0	53.41		ug/L		101	57 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: 490-115050-3 MSD
Matrix: Water
Analysis Batch: 384702

Client Sample ID: BR-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		50.0	47.68		ug/L		95	54 - 150	16	17
cis-1,2-Dichloroethene	ND		50.0	45.86		ug/L		90	68 - 131	15	17
Tetrachloroethene	ND		50.0	49.72		ug/L		99	57 - 138	9	16
trans-1,2-Dichloroethene	ND	F2	50.0	42.14	F2	ug/L		84	59 - 143	30	16
Trichloroethene	ND		50.0	50.58		ug/L		101	63 - 135	5	17
Vinyl chloride	3.00		50.0	53.23		ug/L		100	57 - 150	0	17

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*110*		*70 - 130*

Lab Sample ID: MB 490-384800/7
Matrix: Water
Analysis Batch: 384800

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/08/16 13:28	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 13:28	1
Tetrachloroethene	ND		1.00		ug/L			11/08/16 13:28	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/08/16 13:28	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 490-384800/7
Matrix: Water
Analysis Batch: 384800

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		1.00		ug/L			11/08/16 13:28	1
Vinyl chloride	ND		1.00		ug/L			11/08/16 13:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*11/08/16 13:28*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*11/08/16 13:28*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/08/16 13:28*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*11/08/16 13:28*	*1*

Lab Sample ID: LCS 490-384800/3
Matrix: Water
Analysis Batch: 384800

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	20.0	19.58		ug/L		98	79 - 124
cis-1,2-Dichloroethene	20.0	20.03		ug/L		100	76 - 125
Tetrachloroethene	20.0	18.55		ug/L		93	80 - 126
trans-1,2-Dichloroethene	20.0	20.08		ug/L		100	79 - 126
Trichloroethene	20.0	18.31		ug/L		92	80 - 123
Vinyl chloride	20.0	19.76		ug/L		99	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 490-384800/4
Matrix: Water
Analysis Batch: 384800

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	19.33		ug/L		97	79 - 124	1	20
cis-1,2-Dichloroethene	20.0	20.58		ug/L		103	76 - 125	3	15
Tetrachloroethene	20.0	18.67		ug/L		93	80 - 126	1	17
trans-1,2-Dichloroethene	20.0	19.11		ug/L		96	79 - 126	5	15
Trichloroethene	20.0	18.92		ug/L		95	80 - 123	3	14
Vinyl chloride	20.0	19.68		ug/L		98	68 - 120	0	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 490-114937-A-9 MS
Matrix: Water
Analysis Batch: 384800

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		250	251.2		ug/L		100	54 - 150
cis-1,2-Dichloroethene	479		250	748.6		ug/L		108	68 - 131
Tetrachloroethene	ND		250	240.2		ug/L		96	57 - 138
trans-1,2-Dichloroethene	18.9		250	274.5		ug/L		102	59 - 143
Trichloroethene	30.8	F1	250	270.6		ug/L		96	63 - 135
Vinyl chloride	2690	E	250	2881	E 4	ug/L		77	57 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: 490-114937-A-9 MSD
Matrix: Water
Analysis Batch: 384800

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 490-385541/9
Matrix: Water
Analysis Batch: 385541

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.00		ug/L			11/10/16 14:10	1
cis-1,2-Dichloroethene	ND		1.00		ug/L			11/10/16 14:10	1
Tetrachloroethene	ND		1.00		ug/L			11/10/16 14:10	1
trans-1,2-Dichloroethene	ND		1.00		ug/L			11/10/16 14:10	1
Trichloroethene	ND		1.00		ug/L			11/10/16 14:10	1
Vinyl chloride	ND		1.00		ug/L			11/10/16 14:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*11/10/16 14:10*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*11/10/16 14:10*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/10/16 14:10*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*		*11/10/16 14:10*	*1*

Lab Sample ID: LCS 490-385541/3
Matrix: Water
Analysis Batch: 385541

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene			20.0	18.44		ug/L		92	79 - 124

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 490-385541/3
Matrix: Water
Analysis Batch: 385541

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	20.0	20.18		ug/L		101	76 - 125
Tetrachloroethene	20.0	17.77		ug/L		89	80 - 126
trans-1,2-Dichloroethene	20.0	19.81		ug/L		99	79 - 126
Trichloroethene	20.0	18.17		ug/L		91	80 - 123
Vinyl chloride	20.0	19.02		ug/L		95	68 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 490-385541/4
Matrix: Water
Analysis Batch: 385541

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	17.44		ug/L		87	79 - 124	6	20
cis-1,2-Dichloroethene	20.0	19.79		ug/L		99	76 - 125	2	15
Tetrachloroethene	20.0	17.34		ug/L		87	80 - 126	2	17
trans-1,2-Dichloroethene	20.0	17.69		ug/L		88	79 - 126	11	15
Trichloroethene	20.0	17.25		ug/L		86	80 - 123	5	14
Vinyl chloride	20.0	18.08		ug/L		90	68 - 120	5	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: 490-115050-12 MS
Matrix: Water
Analysis Batch: 385541

Client Sample ID: BR-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		250	262.8		ug/L		105	54 - 150
cis-1,2-Dichloroethene	345		250	583.3		ug/L		95	68 - 131
Tetrachloroethene	ND		250	241.4		ug/L		97	57 - 138
trans-1,2-Dichloroethene	41.0		250	303.3		ug/L		105	59 - 143
Trichloroethene	154		250	380.4		ug/L		91	63 - 135
Vinyl chloride	ND		250	259.3		ug/L		103	57 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 490-115050-12 MSD
Matrix: Water
Analysis Batch: 385541

Client Sample ID: BR-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		250	262.8		ug/L		105	54 - 150	0	17
cis-1,2-Dichloroethene	345		250	576.4		ug/L		93	68 - 131	1	17
Tetrachloroethene	ND		250	241.4		ug/L		97	57 - 138	0	16
trans-1,2-Dichloroethene	41.0		250	300.7		ug/L		104	59 - 143	1	16
Trichloroethene	154		250	375.0		ug/L		88	63 - 135	1	17
Vinyl chloride	ND		250	259.5		ug/L		103	57 - 150	0	17

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 490-383417/6
Matrix: Water
Analysis Batch: 383417

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.00		mg/L			11/01/16 13:05	1

Lab Sample ID: LCS 490-383417/7
Matrix: Water
Analysis Batch: 383417

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	10.06		mg/L		101	90 - 110

Lab Sample ID: LCSD 490-383417/8
Matrix: Water
Analysis Batch: 383417

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	10.0	10.14		mg/L		101	90 - 110	1	20

Lab Sample ID: 490-115050-8 MS
Matrix: Water
Analysis Batch: 383417

Client Sample ID: TW-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12.6		2.00	12.08	4	mg/L		-27	80 - 120

GC/MS VOA

Analysis Batch: 384702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-115050-1	TW-04	Total/NA	Water	8260C	
490-115050-2	OB-04	Total/NA	Water	8260C	
490-115050-3	BR-15	Total/NA	Water	8260C	
490-115050-4	OB-08	Total/NA	Water	8260C	
490-115050-5	OB-06	Total/NA	Water	8260C	
490-115050-6	TW-09	Total/NA	Water	8260C	
490-115050-7	TW-20	Total/NA	Water	8260C	
490-115050-8	TW-17	Total/NA	Water	8260C	
490-115050-9	W-5	Total/NA	Water	8260C	
490-115050-10	DUP-01	Total/NA	Water	8260C	
490-115050-11	BR-03	Total/NA	Water	8260C	
490-115050-12	BR-10	Total/NA	Water	8260C	
490-115050-13	BR-04	Total/NA	Water	8260C	
490-115050-14	BR-02	Total/NA	Water	8260C	
490-115050-15	BR-01	Total/NA	Water	8260C	
490-115050-16	QATB-01	Total/NA	Water	8260C	
490-115050-17	QARB-01	Total/NA	Water	8260C	
490-115050-18	QAFB-01	Total/NA	Water	8260C	
MB 490-384702/7	Method Blank	Total/NA	Water	8260C	
LCS 490-384702/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-384702/4	Lab Control Sample Dup	Total/NA	Water	8260C	
490-115050-3 MS	BR-15	Total/NA	Water	8260C	
490-115050-3 MSD	BR-15	Total/NA	Water	8260C	

Analysis Batch: 384800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-115050-11	BR-03	Total/NA	Water	8260C	
490-115050-13	BR-04	Total/NA	Water	8260C	
490-115050-15	BR-01	Total/NA	Water	8260C	
MB 490-384800/7	Method Blank	Total/NA	Water	8260C	
LCS 490-384800/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-384800/4	Lab Control Sample Dup	Total/NA	Water	8260C	
490-114937-A-9 MS	Matrix Spike	Total/NA	Water	8260C	
490-114937-A-9 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

Analysis Batch: 385541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-115050-12	BR-10	Total/NA	Water	8260C	
490-115050-14	BR-02	Total/NA	Water	8260C	
MB 490-385541/9	Method Blank	Total/NA	Water	8260C	
LCS 490-385541/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 490-385541/4	Lab Control Sample Dup	Total/NA	Water	8260C	
490-115050-12 MS	BR-10	Total/NA	Water	8260C	
490-115050-12 MSD	BR-10	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 383417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-115050-1	TW-04	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 383417 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-115050-5	OB-06	Total/NA	Water	300.0	
490-115050-8	TW-17	Total/NA	Water	300.0	
490-115050-9	W-5	Total/NA	Water	300.0	
MB 490-383417/6	Method Blank	Total/NA	Water	300.0	
LCS 490-383417/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 490-383417/8	Lab Control Sample Dup	Total/NA	Water	300.0	
490-115050-8 MS	TW-17	Total/NA	Water	300.0	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: TW-04
Date Collected: 10/25/16 10:30
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 03:02	AK1	TAL NSH
Total/NA	Analysis	300.0		20			383417	11/01/16 15:11	JHS	TAL NSH

Client Sample ID: OB-04
Date Collected: 10/25/16 13:30
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 03:27	AK1	TAL NSH

Client Sample ID: BR-15
Date Collected: 10/25/16 16:45
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 03:52	AK1	TAL NSH

Client Sample ID: OB-08
Date Collected: 10/26/16 10:00
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 04:17	AK1	TAL NSH

Client Sample ID: OB-06
Date Collected: 10/26/16 11:25
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 04:42	AK1	TAL NSH
Total/NA	Analysis	300.0		20			383417	11/01/16 15:28	JHS	TAL NSH

Client Sample ID: TW-09
Date Collected: 10/26/16 13:00
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 05:08	AK1	TAL NSH

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Client Sample ID: TW-20
Date Collected: 10/26/16 14:20
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 05:33	AK1	TAL NSH

Client Sample ID: TW-17
Date Collected: 10/26/16 16:30
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 05:58	AK1	TAL NSH
Total/NA	Analysis	300.0		1			383417	11/01/16 15:46	JHS	TAL NSH

Client Sample ID: W-5
Date Collected: 10/26/16 18:00
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 06:23	AK1	TAL NSH
Total/NA	Analysis	300.0		10			383417	11/01/16 16:25	JHS	TAL NSH

Client Sample ID: DUP-01
Date Collected: 10/26/16 00:01
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 06:48	AK1	TAL NSH

Client Sample ID: BR-03
Date Collected: 10/27/16 09:20
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 07:13	AK1	TAL NSH
Total/NA	Analysis	8260C		10	10 mL	10 mL	384800	11/08/16 19:34	RP	TAL NSH

Client Sample ID: BR-10
Date Collected: 10/27/16 10:25
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 07:39	AK1	TAL NSH
Total/NA	Analysis	8260C		5	10 mL	10 mL	385541	11/10/16 17:39	BBR	TAL NSH

Client Sample ID: BR-04
Date Collected: 10/27/16 11:32
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 08:29	AK1	TAL NSH
Total/NA	Analysis	8260C		10	10 mL	10 mL	384800	11/08/16 20:00	RP	TAL NSH

Client Sample ID: BR-02
Date Collected: 10/27/16 12:40
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 08:04	AK1	TAL NSH
Total/NA	Analysis	8260C		1	10 mL	10 mL	385541	11/10/16 18:05	BBR	TAL NSH

Client Sample ID: BR-01
Date Collected: 10/27/16 14:00
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 08:54	AK1	TAL NSH
Total/NA	Analysis	8260C		10	10 mL	10 mL	384800	11/08/16 20:26	RP	TAL NSH

Client Sample ID: QATB-01
Date Collected: 10/27/16 14:20
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 01:46	AK1	TAL NSH

Client Sample ID: QARB-01
Date Collected: 10/27/16 14:30
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 02:37	AK1	TAL NSH

Client Sample ID: QAFB-01
Date Collected: 10/27/16 14:25
Date Received: 10/28/16 09:40

Lab Sample ID: 490-115050-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	10 mL	10 mL	384702	11/08/16 02:11	AK1	TAL NSH

Laboratory References:
TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL NSH
300.0	Anions, Ion Chromatography	MCAWW	TAL NSH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Former Taylor Instruments

TestAmerica Job ID: 490-115050-1

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	11342	03-31-17

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

490-115050 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 10/28/2016 @ 0940

Time Samples Removed From Cooler 0940 Time Samples Placed In Storage 2019 (2 Hour Window)

1. Tracking # 2501 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot HC682747 Chlorine Strip Lot 0613160

2. Temperature of rep. sample or temp blank when opened: 3.8 *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: 1 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) M

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) RS

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) PM

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) PM

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

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

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 12/15/15

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Noel Garland	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No: 490-513-112.2
Client Contact: Mr. Joe Deatherage	Phone: 865-202-9213	E-Mail: shali.brown@testamericainc.com		Page: 1 of 2
Company: AMEC Environment & Infrastructure, Inc.		Analysis Requested		Job #:
Address: 9725 Cogdill Road	Due Date Requested:			Preservation Codes:
City: Knoxville	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: TN, 37932				
Phone: 865-218-1049(Tel)	PO #: C012605598			Other:
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 30315028			
Site: Rochester, NY	SSOW#:			

Loc: 490
115050

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B TCE PCE 1,1-DCE cis/trans 1,2 DCE vinyl chloride	Sulfate 300.0	624 VOC's standard list	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	A		
1 TW-04	10/25/16	10:30	G	W	N		X	X			
2 OB-04		13:30					X				
3 BR-15		16:45					X				
BR-15 MS		16:45					X				matrix spike
BR-15 MSD		16:45					X				matrix spike Dup.
4 OB-08	10/26/16	10:00					X				
5 OB-06		11:25					X	X			
6 TW-09		13:00					X				
7 TW-20		14:20					X				
8 TW-17		16:30					X	X			
9 W-5		15:00					X	X			

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Noel Garland	10/27/16 16:00	AMEC FW		10/28/16 940	TAN.
2						
3						

Custody Seals Intact: | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Noel Garland	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No. 490-513-112.2
Client Contact: Mr. Joe Deatherage	Phone: 865-202-9213	E-Mail: shali.brown@testamericainc.com		Page: 2 of 2
Company: AMEC Environment & Infrastructure, Inc.				Job #:
Address: 9725 Cogdill Road	Due Date Requested:			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37932				
Phone: 865-218-1049(Tel)	PO #: C012605598			
Email: joe.deatherage@amec.com	WO #:			
Project Name: Former Taylor Instruments	Project #: 30315028			
Site: Rochester, Ny	SSOW#:			

Analysis Requested

Loc: 490
115050
#1
C

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B TCE PCE 1,1-DCE cis/trans 1,2 DCE vinyl chloride	Sulfate 300.0	624 VOC's standard list	Total Number of containers	Special Instructions/Note:
	Preservation Code:							A	N	A		
10	Dup-01	10/26/16	—	G	W	N		X				
11	BR-03	10/27/16	09:20					X				
12	BR-10		10:25					X				
13	BR-04		11:32					X				
14	BR-02		12:40					X				
15	BR-01		14:00					X				
16	QATB-01		14:00					X				
17	QARB-01		14:30					X				
18	QAFB-01		14:25					X				
								X				

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Noel Garland	10/27/16 16:00	Amec FW		10/28/16 940	TAN
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 490-115050-1

Login Number: 115050
List Number: 1
Creator: Ngo, Phiet

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX E

FIELD DATA RECORDS

MAY 2016
FIELD DATA RECORDS

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/03/16

SITE ID: OB-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1040 END 1225

JOB NUMBER: 3031152028.03

WATER LEVEL

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	2.97 FT	WELL DEPTH	16.45 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	6.61 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	3.64 FT	DRAWDOWN VOLUME	0.582 GAL	PRODUCT THICKNESS	NA 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: 0.129 L/MIN

BEGIN PURGING: 1046

END PURGING: 1208

TOTAL VOL. PURGED: 2.75 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1049	FC	6.37	0.938	13.5	3.63	12.43	-104.5	3.98	clear - no odor
1059	1.6	6.31	0.884	30.7	4.31	11.87	-186.0	5.61	slowed pump
1109	1.4	6.36	0.900	106	2.74	11.66	-229.0	6.11	light gray - slight odor
1118	1	6.40	0.964	101	1.73	12.04	-241.3	6.12	Empt. of F.C.
1128	1.2	6.37	0.975	36.7	1.84	12.05	-230.5	6.24	clear - Black flakes
1136	1	6.36	0.970	28.6	1.25	12.02	-245.3	6.65	clear - Slight odor
1144	1	6.36	0.982	22.7	1.11	12.11	-246.1	6.67	
1152	1	6.36	0.998	15.1	1.03	12.14	-252.6	6.67	clear - Slight odor
1200	1	6.36	1.001	16.7	0.97	12.19	-250.7	6.65	
1208	1	6.36	1.008	15.1	0.93	12.39	-249.2	6.63	clear - odor
1210				collect	sample				

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 @ 14ft btoc

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	OB-04	1210
[X]	VFA's		OB-04	1210
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 5-03-16

SITE ID: OB-06

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1358 END 1540

JOB NUMBER: 3031152028.03

WATER LEVEL

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	3.86 FT	WELL DEPTH	16.45 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	5.38 FT	SCREEN LENGTH	10 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	1.52 FT	DRAWDOWN VOLUME	0.243 GAL	PRODUCT THICKNESS	NA 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	0.124 L/MIN	BEGIN PURGING	1401	END PURGING	1521

TOTAL VOL. PURGED: 2.57 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1405	FC	6.64	0.935	14.3	3.64	12.32	-74.9	4.44	clear - NO odor
1415	1.4	6.61	0.922	8.23	1.61	12.11	-70.9	5.20	slowed pump
1425	1.2	6.61	0.898	11.6	0.97	12.09	-91.4	5.33	
1435	1.2	6.59	0.880	11.8	0.77	12.42	-101.9	5.39	slowed pump
1445	1.2	6.59	0.876	10.2	0.69	12.23	-143.9	5.38	
1455	1.2	6.58	0.875	10.2	0.69	12.72	-158.1	5.38	
1505	1.2	6.59	0.875	11.4	0.73	12.37	-178.2	5.37	clear - NO odor
1513	1	6.59	0.882	10.0	0.68	12.48	-173.7	5.38	
1521	1	6.60	0.883	9.35	0.70	12.19	-179.0	5.37	clear - NO odor
1530	—	—	— collect	Sample	—	—	—	—	—

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 @ 11.5Ft btoc

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	OB-06	1530
[X]	VFA's		OB-06	1530
[X]	Sulfate		OB-06	1531
[X]	Methane/Ethene		OB-06	1530
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/03/16

SITE ID: OB-08

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1230 END 1359

JOB NUMBER: 3031152028.03

WATER LEVEL

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	5.24 FT	WELL DEPTH	25.3 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	7.21 FT	SCREEN LENGTH	10 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	1.97 FT	DRAWDOWN VOLUME	0.315 GAL	PRODUCT THICKNESS	NA 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: 0.118 L/MIN

BEGIN PURGING: 1233

END PURGING: 1344

TOTAL VOL. PURGED: 2.17 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1236	FC	6.91	0.942	17.4	2.58	13.78	-136.4	5.85	clear - no odor
1246	1.5	6.87	0.929	10.3	1.71	13.59	-123.5	6.68	
1256	1.2	6.87	0.925	9.94	1.04	14.00	-95.7	7.00	slowed pump
1306	1.1	6.87	0.928	8.45	0.81	13.57	-98.4	7.16	
1316	1.1	6.87	0.929	8.90	0.69	13.44	-91.4	7.21	clear - no odor
1326	1.1	6.86	0.932	9.26	0.63	13.32	-87.6	7.21	clear - no odor
1336	1.0	6.86	0.936	9.20	0.61	13.19	-92.5	7.21	
1344	1.0	6.86	0.937	9.10	0.60	13.36	-88.4	7.21	clear - no odor
1350				collect		Sample			

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 @ 20 ft btoc

SIGNATURE: _____

NOTES

	Preservation	Sample Name	Time Collected
[X] VOC (modified list)	HCL	OB-08	1350
[X] VFA's		OB-08	1350
[ ] Sulfate			
[ ] Methane/Ethene			
[ ] Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/03/16

SITE ID: TW-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0840 END 1035

JOB NUMBER: 3031152028.03

WATER LEVEL

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	8.99 FT	WELL DEPTH	17.3 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	11.64 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	2.65 FT	DRAWDOWN VOLUME	0.424 GAL	PRODUCT THICKNESS	NA 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: 0.120 L/MIN

BEGIN PURGING: 0855

END PURGING: 1018

TOTAL VOL. PURGED: 2.59 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
0858	—FC	6.88	0.923	7.53	6.66	10.01	228.8	9.80	clear-NO odor
0906	1	6.91	0.938	3.91	4.19	10.00	225.1	10.48	
0916	1.2	6.91	0.944	1.89	3.64	9.94	104.5	11.05	slowed pump
0926	1.1	6.89	0.945	1.78	3.03	10.22	70.6	11.18	clear-NO odor
0936	1.1	6.88	0.950	1.81	2.74	10.28	47.5	11.29	
0946	1.2	6.86	0.955	0.86	2.39	10.21	27.1	11.44	
0954	1	6.81	0.960	0.81	2.43	10.21	-0.3	11.54	clear-NO odor
1002	1	6.80	0.960	0.99	2.47	10.28	-9.6	11.56	
1010	1	6.80	0.961	1.14	2.45	10.29	-12.4	11.60	
1018	1	6.80	0.962	0.81	2.44	10.38	-14.9	11.61	clear-NO odor
1020	———	———	Collect	Sample			———	———	———

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 @ 14.8ft btoc

SIGNATURE: _____

NOTES

	Preservation	Sample Name	Time Collected
[X] VOC (modified list)	HCL	TW-04	1020
[X] VFA's		TW-04	1020
[X] Sulfate		TW-04	1020
[X] Methane/Ethene		TW-04	1020
[ ] Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event
DATE: 05/04/16
SITE ID: TW-09
SITE TYPE: Monitor Well
SITE ACTIVITY: START 1142 END 1310
JOB NUMBER: 3031152028.03

WATER LEVEL

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	11.05 FT	WELL DEPTH	17.70 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	11.33 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM	WELL INTEGRITY: CAP / CASING / LOCKED / COLLAR	YES: ✓ ✓ ✓ — NO: — — — — N/A: — — ✓ —
DRAWDOWN	0.28 FT	DRAWDOWN VOLUME	0.045 GAL	PRODUCT THICKNESS	NA FT		

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE: 0.106 L/MIN
BEGIN PURGING: 1147
END PURGING: 1301
TOTAL VOL. PURGED: 2.03 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1151	FC	6.90	0.765	41.6	2.65	12.17	-6.1	11.25	Cloudy - NO odor
1201	1.3	6.85	0.785	27.1	0.67	11.92	-27.2	11.35	Slowed pump
1211	1.1	6.81	0.815	19.4	0.65	12.07	-51.5	11.35	Clear - NO odor
1221	1.1	6.79	0.830	11.9	0.36	12.06	-57.2	11.34	
1231	1.1	6.78	0.839	9.53	1.89	11.93	-67.1	11.35	Slowed pump
1241	1	6.77	0.841	5.90	1.26	12.13	-62.4	11.33	Clear - NO odor
1251	0.9	6.77	0.843	4.01	1.75	12.06	-61.9	11.33	
1301	0.9	6.77	0.842	2.51	1.22	12.01	-62.6	11.33	Clear - NO odor
1305				Collect		Sample			

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 @ 15ft btoc

SIGNATURE: [signature]

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	TW-09	1305
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 5/03/16

SITE ID: TW-17

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1542 END 1745

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): 2 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER	7.49 FT	WELL DEPTH	17.04 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	10.23 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	2.74 FT	DRAWDOWN VOLUME	0.438 GAL	PRODUCT THICKNESS	NA 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: 0.102 L/MIN

BEGIN PURGING: 1546

END PURGING: 1724

TOTAL VOL. PURGED: 2.60 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1550	FC	6.57	0.920	59.4	2.82	11.47	-53.0	8.20	Cloudy - No odor
1600	1.3	6.54	0.907	53.3	1.56	11.24	2.0	9.10	
1610	1.2	6.54	0.903	57.6	0.76	11.28	-40.9	9.80	
1620	1.3	6.54	0.918	59.5	0.54	10.83	-89.5	10.30	Slowed pump
1630	1	6.55	0.909	46.5	0.41	11.24	-112.7	10.34	
1640	0.9	6.55	0.916	41.2	0.39	11.35	-135.9	10.30	Cloudy - No odor
1650	0.9	6.56	0.921	27.1	0.34	11.14	-141.4	10.27	
1700	0.9	6.56	0.924	20.0	0.29	11.13	-151.5	10.25	Clear - No odor
1710	0.9	6.57	0.927	17.2	0.26	11.07	-161.2	10.24	
1717	0.60	6.57	0.933	18.8	0.28	11.00	-155.5	10.24	
1724	0.60	6.57	0.931	17.3	0.26	10.95	-157.1	10.23	Clear - No odor
1730				Collect	Sample				

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 ft btoc

SIGNATURE: [signature]

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	TW-17	1730
[X]	VFA's		TW-17	1730
[X]	Sulfate		TW-17	1730
[X]	Methane/Ethene		TW-17	1730
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 5/04/16

SITE ID: Tw-20

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1042 END 1140

JOB NUMBER: 3031152028.03

WATER LEVEL

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: 12.35 FT

WELL DEPTH: 17.22 FT

PID AMBIENT AIR: NA PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 12.70 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: NA PPM

DRAWDOWN: 0.35 FT

DRAWDOWN VOLUME: 0.056 GAL

PRODUCT THICKNESS: NA 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: 0.128 L/MIN

BEGIN PURGING: 1047

END PURGING: 1133

TOTAL VOL. PURGED: 1.53 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1050	FC	6.92	0.876	1.51	3.58	11.02	33.4	12.55	clear - No odor
1100	1.5	6.95	0.875	1.37	1.82	10.63	38.5	12.65	slowed pump
1108	1	6.94	0.844	0.85	2.29	11.14	46.9	12.69	
1116	1	6.93	0.850	0.40	2.31	11.12	51.3	12.70	clear - No odor
1124	1	6.93	0.856	0.46	2.27	11.06	54.2	12.72	slowed pump
1133	1	6.92	0.857	0.62	2.26	11.20	57.0	12.71	clear - No odor
1135				Collect Sample					

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 ft btoc

SIGNATURE:

NOTES

	Preservation	Sample Name	Time Collected
[X] VOC (modified list)	HCL	Tw-20	1135
[ ] VFA's			
[ ] Sulfate			
[ ] Methane/Ethene			
[ ] Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments, 2016 Semi-Annual Sampling Event

DATE: 05/04/16

SITE ID: W-5

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1311 END 1455

JOB NUMBER: 3031152028.03

WATER LEVEL

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: 4.87 FT

WELL DEPTH: 21.8 FT

PID AMBIENT AIR: NA PPM

WELL DIAMETER: 2 IN

FINAL DEPTH TO WATER: 7.29 FT

SCREEN LENGTH: 5 FT

PID WELL MOUTH: NA PPM

DRAWDOWN: 2.42 FT

DRAWDOWN VOLUME: ~~1.573~~ 0.387 GAL

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PRODUCT THICKNESS: NA FT

WELL INTEGRITY:	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR			X

PURGE RATE: 0.093 L/MIN

BEGIN PURGING: 1313

END PURGING: 1436

TOTAL VOL. PURGED: 2.05 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1316	FC	6.61	1.187	7.51	2.68	11.86	-44.9	5.62	clear - NO odor
1326	1	6.60	1.186	45.9	2.28	11.97	-16.9	6.50	cloudy - orange tint
1336	1.2	6.59	1.190	17.8	1.75	11.84	-14.1	7.22	slowed pump
1346	0.9	6.58	1.196	12.8	0.94	12.07	-18.8	7.22	clear - NO odor
1358	1	6.57	1.204	6.52	0.81	12.03	-28.6	7.21	
1410	1	6.55	1.211	6.50	0.68	11.94	-31.1	7.24	
1422	1	6.55	1.216	4.57	0.55	11.93	-32.4	7.27	
1430	0.75	6.54	1.220	4.63	0.52	11.89	-32.9	7.28	clear - NO odor
1438	0.75	6.54	1.222	5.58	0.51	11.93	-33.3	7.28	clear - NO odor
1445	—	—	—	Collect Sample			—	—	

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 ft btoc

SIGNATURE:

NOTES

	Preservation	Sample Name	Time Collected
[X] VOC (modified list)	HCL	W-5	1445
[X] VFA's		W-5	1445
[X] Sulfate		W-5	1445
[X] Methane/Ethene		W-5	1445
[X] Duplicate		Dup-01	

Dup-01

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/05/16

SITE ID: BR-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1157 END 1320

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.3 FT

PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER: 12.97 FT

WELL DEPTH: 38.6 FT

PID AMBIENT AIR: NA PPM

WELL DIAMETER: 4 IN

FINAL DEPTH TO WATER: 12.85 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: NA PPM

DRAWDOWN: -0.12 FT

DRAWDOWN VOLUME: -0.078 GAL

PRODUCT THICKNESS: NA 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: 0.142 L/MIN

BEGIN PURGING: 1202

END PURGING: 1305

TOTAL VOL. PURGED: 2.32 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1205	5-C	7.06	0.903	75.7	2.82	12.23	-92.2	12.97	Cloudy - Orange tint
1215	1.5	6.96	0.990	126	0.50	11.95	-95.6	12.95	Cloudy - Slight odor
1230	2	6.93	1.019	26.8	0.53	12.13	-95.7	12.90	Cloudy - NO odor
1237	1	6.93	1.021	16.2	0.52	12.18	-92.4	12.88	Clear - No odor
1244	1	6.93	1.021	14.7	0.47	12.21	-87.9	12.86	
1251	1	6.92	1.025	14.5	0.49	12.12	-85.5	12.85	
1258	1	6.92	1.022	14.0	0.48	12.17	-87.8	12.85	
1305	1	6.93	1.023	14.5	0.47	12.06	-87.8	12.85	Clear - No odor
1310				Collect Sample					

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 @ 23.5 ft btoc

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	BR-01	1310
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/05/16

SITE ID: BR-02

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1033 END 1155

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.45 FT

INITIAL DEPTH TO WATER: 22.30 FT

WELL DEPTH: 44 FT

PID AMBIENT AIR: NA PPM

WELL DIAMETER: 4 IN

FINAL DEPTH TO WATER: 22.69 FT

SCREEN LENGTH: NA FT

PID WELL MOUTH: NA PPM

DRAWDOWN: 0.39 FT

DRAWDOWN VOLUME: 0.254 GAL

PRODUCT THICKNESS: NA 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: 0.104 L/MIN

BEGIN PURGING: 1039

END PURGING: 1143

TOTAL VOL PURGED: 1.73 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1043	FC	7.57	0.611	10.5	1.35	13.69	-178.3	22.46	Clear - NO odor
1053	1.3	7.55	0.605	6.52	0.54	13.36	-158.4	22.55	
1103	1.2	7.55	0.605	5.41	0.40	13.29	-160.2	22.61	Slowed pump
1113	1	7.54	0.605	4.10	0.31	13.34	-161.0	22.63	
1123	0.95	7.55	0.605	4.83	0.32	13.35	-163.5	22.66	
1133	0.55	7.54	0.604	3.68	0.30	13.58	-161.4	22.69	Slowed pump
1143	0.85	7.54	0.604	4.29	0.31	13.79	-158.9	22.69	
1145				collect Sample					

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 @ 25.4ft BLS

SIGNATURE:

NOTES

	Preservation	Sample Name	Time Collected
[X] VOC (modified list)	HCL	BR-02	1145
[ ] VFA's			
[ ] Sulfate			
[ ] Methane/Ethene			
[ ] Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 5/04/16

SITE ID: BR-03

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1502 END 1705

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): 2.2 FT

PROTECTIVE CASING / WELL DIFFERENCE: / FT

INITIAL DEPTH TO WATER	9.38 FT	WELL DEPTH	40.1 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	10.46 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	1.08 FT	DRAWDOWN VOLUME	0.702 GAL	PRODUCT THICKNESS	NA 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: 0.101 L/MIN

BEGIN PURGING: 1505

END PURGING: 1655

TOTAL VOL. PURGED: 2.89 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1515	FC	7.58	0.809	74.1	1.81	12.25	-195.3	9.81	cloudy - Orange tint
1525	1.2	7.50	0.794	58.2	0.44	12.11	-168.8	10.09	
1535	1.2	7.43	0.791	37.7	0.39	12.14	-141.1	10.26	cloudy - No odor
1545	1.2	7.42	0.789	32.3	0.32	12.25	-140.4	10.39	Slowed pump
1555	1	7.47	0.789	27.1	0.32	12.35	-166.9	10.44	
1605	1	7.48	0.789	21.7	0.30	12.33	-168.1	10.48	Slowed pump
1615	0.9	7.44	0.788	27.0	0.30	12.43	-177.4	10.48	Emptied FC
1625	0.9	7.50	0.790	20.4	0.30	12.72	-186.6	10.47	clear - No odor
1635	0.9	7.48	0.790	19.6	0.28	12.57	-179.7	10.47	
1645	0.9	7.47	0.790	19.2	0.26	12.63	-179.6	10.47	
1655	0.9	7.47	0.790	20.1	0.25	12.72	-176.8	10.46	clear - No odor
1700				Collect Sample					

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 @ 23.5 ft BTS

SIGNATURE: _____

NOTES

	Preservation	Sample Name	Time Collected
[X] VOC (modified list)	HCL	BR-03	1700
[ ] VFA's			
[ ] Sulfate			
[ ] Methane/Ethene			
[ ] Duplicate			

Purged ≈ 800mL from well before connecting to the YSI. water was Rust colored with small metal flakes.

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/05/16

SITE ID: BR-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0926 END 1030

JOB NUMBER: 3031152028.03

WATER LEVEL

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	17.25 FT	WELL DEPTH	44.2 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	17.26 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	0.01 FT	DRAWDOWN VOLUME	0.007 GAL	PRODUCT THICKNESS	NA 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: 0.140 L/MIN

BEGIN PURGING: 0933

END PURGING: 1018

TOTAL VOL. PURGED: 1.64 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
0936	FC	7.88	0.459	30.7	1.62	14.24	-91.9	17.25	cloudy - orange tint no odor
0946	1.4	7.31	0.726	18.2	0.50	14.12	-103.1	17.25	
0956	1.4	7.02	1.433	11.2	0.38	14.34	-95.3	17.26	
1004	1.1	7.03	1.443	7.30	0.42	14.25	-100.3	17.26	clear - no odor
1011	1	7.04	1.450	3.87	0.41	14.49	-103.5	17.26	
1018	1	7.04	1.456	4.21	0.43	14.55	-106.9	17.26	clear - no odor
1020	—	—	—	Collect Sample			—		

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 @ 26.5 ft BGS

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	BR-04	1020
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments, 2016 Semi-Annual Sampling Event

DATE: 05/05/16

SITE ID: BR-10

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0752 END 0925

JOB NUMBER: 3031152028.03

WATER LEVEL

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	16.84 FT	WELL DEPTH	47 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	6 IN
FINAL DEPTH TO WATER	16.84 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	0 FT	DRAWDOWN VOLUME	0 GAL	PRODUCT THICKNESS	NA 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: 0.133 L/MIN

BEGIN PURGING: 0756

END PURGING: 0915

TOTAL VOL. PURGED: 2.74 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
0800	FC	7.51	0.512	64.6	2.78	12.47	196.0	16.84	orange tint - no odor
0810	1.3	7.77	0.516	34.3	1.06	12.70	155.0	16.84	
0820	1.3	7.82	0.518	23.6	0.56	12.79	32.3	16.84	clear - no odor
0830	1.4	7.82	0.518	17.3	0.42	12.93	8.0	16.84	
0840	1.4	7.83	0.519	13.3	0.40	12.92	-31.4	16.84	
0850	1.3	7.83	0.518	10.2	0.36	13.11	-63.4	16.84	
0900	1.3	7.84	0.519	9.83	0.34	13.14	-76.2	16.84	
0907	1	7.84	0.519	7.50	0.34	13.09	-79.8	16.84	
0915	1	7.84	0.519	8.45	0.35	13.15	-77.0	16.84	
0920				Collect Sample					

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 @ 25.5ft btoc

SIGNATURE:

NOTES

	Preservation	Sample Name	Time Collected
[X] VOC (modified list)	HCL	BR-10	0920
[ ] VFA's			
[ ] Sulfate			
[ ] Methane/Ethene			
[ ] Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/04/16

SITE ID: BR-15

SITE TYPE: Monitor Well

SITE ACTIVITY: START 0735 END 1038

JOB NUMBER: 3031152028.03

WATER LEVEL

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	17.95 FT	WELL DEPTH	72 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	6 IN
FINAL DEPTH TO WATER	19.94 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	1.99 FT	DRAWDOWN VOLUME	~~0.34~~ 2.99 GAL	PRODUCT THICKNESS	NA 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: 0.112 L/MIN | BEGIN PURGING: 0743 | END PURGING: 1010 | TOTAL VOL PURGED: 4.57 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
0744	FC	7.59	0.236	6.87	2.96	12.88	97.5	18.09	Clear - No odor
0758	1.2	7.83	0.237	6.00	1.12	13.20	-36.8	18.23	
0814	2	7.88	0.236	6.09	0.71	13.34	-147.0	18.55	
0830	2	7.89	0.236	6.20	0.48	13.51	-148.6	18.87	
0845	2.5	7.91	0.236	6.20	0.37	13.62	-180.3	19.14	
0900	2.2	7.87	0.236	5.97	0.38	13.60	-139.6	19.40	Slowed pump
0915	1.4	7.88	0.236	6.00	0.32	13.54	-167.1	19.55	clear - No odor
0930	1.4	7.87	0.236	6.05	0.32	13.72	-166.4	19.70	Slowed pump
0940	0.75	7.89	0.236	6.38	0.31	13.63	-170.4	19.72	clear - No odor
0950	0.75	7.89	0.236	6.05	0.32	13.67	-170.3	19.80	Increased pump speed
1000	1.2	7.89	0.236	6.08	0.30	13.79	-168.4	19.90	Slowed pump
1010	0.80	7.89	0.236	5.99	0.29	13.80	-167.0	19.91	clear - No odor
1020	0.80	7.89	0.236	6.02	0.28	13.88	-166.6	19.92	Clear - No odor
1025				collect	Sample				

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 @ 29.5 Ft btoc

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	BR-15	1025
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

MS/MSD → 1025

Rochester GW_Sample_Form.xls

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/05/16

SITE ID: QA+B

SITE TYPE: Monitor Well

SITE ACTIVITY: START / END

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] 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	NA PPM	WELL DIAMETER	/ IN
FINAL DEPTH TO WATER	/ FT	SCREEN LENGTH	/ FT	PID WELL MOUTH	NA PPM	WELL INTEGRITY: CAP	YES NO N/A
DRAWDOWN	/ FT	DRAWDOWN VOLUME	/ GAL	PRODUCT THICKNESS	NA 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: / 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	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
	Lab	Provided							

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 @ _____

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL		
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/05/16

SITE ID: QAFB

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1333 END 1338

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] 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: NA PPM

WELL DIAMETER: ____ IN

FINAL DEPTH TO WATER: ____ FT

SCREEN LENGTH: ____ FT

PID WELL MOUTH: NA PPM

WELL INTEGRITY: CAP, CASING, LOCKED, COLLAR — YES / NO / N/A

DRAWDOWN: ____ FT

DRAWDOWN VOLUME: ____ GAL

PRODUCT THICKNESS: NA 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	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
Poured DI water into sample bottles									

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 @ _____

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	QAFB-01	1335
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 05/05/16

SITE ID: QARB-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1325 END 1332

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] 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	NA PPM	WELL DIAMETER	___ IN
FINAL DEPTH TO WATER	___ FT	SCREEN LENGTH	___ FT	PID WELL MOUTH	NA PPM	WELL INTEGRITY: CAP	YES ___ NO ___ N/A ___
DRAWDOWN	___ FT	DRAWDOWN VOLUME	___ GAL	PRODUCT THICKNESS	NA 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: ___ 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	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
1334	Poured DI water over					my WL meter.			

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 @ _____

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	QARB-01	1330
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 5/05/16

SITE ID: IDW-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 1340 END 1350

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] 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	NA PPM	WELL DIAMETER	____ IN
FINAL DEPTH TO WATER	____ FT	SCREEN LENGTH	____ FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	____ FT	DRAWDOWN VOLUME	____ GAL	PRODUCT THICKNESS	NA 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: ____ 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	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
	Pumped water from Purge Drum.								

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 @ _____

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	IDW-01	1345
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

OCTOBER 2016
FIELD DATA RECORDS

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/25/16

SITE ID: OB-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 12:20 END 13:35

JOB NUMBER: 3031152028.03

WATER LEVEL

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	4.42 FT	WELL DEPTH	16.45 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	6.98 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM	WELL INTEGRITY: CAP	YES ✓
DRAWDOWN	2.56 FT	DRAWDOWN VOLUME	0.410 GAL	PRODUCT THICKNESS	NA FT	CASING	YES ✓
						LOCKED	YES ✓
						COLLAR	N/A ✓

((initial - final) x 0.16 (2-inch) or x 0.65 (4-inch) or x 1.5 (6-inch))

PURGE RATE: 0.156 L/MIN

BEGIN PURGING: 12:25

END PURGING: 13:25

TOTAL VOL. PURGED: 2.44 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
12:28	FC	6.62	0.933	12.7	2.78	17.47	-4.7	5.22	Clear - solvent odor
12:38	1.6	6.54	0.934	18.4	2.47	17.93	-51.1	6.07	lt. gray - slight odor
12:48	1.7	6.60	0.980	108	1.17	17.94	-105.8	6.60	Gray - black flakes
12:58	1.7	6.75	1.015	18.0	1.03	17.65	-137.5	6.92	lt. gray - slight odor, strong odor
13:05	1	6.74	1.032	15.5	0.82	17.98	-150.6	6.92	
13:10	0.75	6.71	1.039	15.5	0.68	17.72	-167.3	6.95	
13:15	0.75	6.71	1.043	13.8	0.67	17.74	-173.7	6.96	
13:20	0.70	6.70	1.047	12.7	0.53	17.72	-169.6	6.97	
13:25	0.70	6.69	1.051	13.1	0.56	17.68	-174.4	6.97	
13:30			Collect		Sample				

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 ft btoc

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	OB-04	13:30
[X]	VFA's		OB-04	13:30
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Sample contained black flakes
Slight odor - no color

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/26/16

SITE ID: OB-06

SITE TYPE: Monitor Well

SITE ACTIVITY: START 10:06 END 11:34

JOB NUMBER: 3031152028.03

WATER LEVEL

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	4.19 FT	WELL DEPTH	16.45 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	5.60 FT	SCREEN LENGTH	10 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	1.41 FT	DRAWDOWN VOLUME	0.226 GAL	PRODUCT THICKNESS	NA 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: 0.148 L/MIN

BEGIN PURGING: 10:07

END PURGING: 11:20

TOTAL VOL. PURGED: 2.81 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
10:10	FC	6.83	1.023	9.71	2.42	16.50	-43.0	4.79	clear - No odor
10:20	1.6	6.82	1.025	21.0	1.82	17.40	-42.8	5.47	
10:30	1.6	6.79	1.025	16.5	0.94	17.68	-30.6	5.65	slowed pump
10:40	1.4	6.72	1.032	10.5	0.69	17.31	-62.5	5.60	
10:48	1	6.73	1.033	8.54	0.64	17.27	-90.4	5.60	Clear - Slight odor
10:53	0.75	6.75	1.035	7.41	0.52	17.50	-90.8	5.60	
11:00	1	6.74	1.035	6.43	0.45	17.61	-95.7	5.60	
11:05	0.75	6.72	1.038	5.72	0.43	17.49	-105.8	5.60	
11:10	0.75	6.72	1.036	5.64	0.37	17.51	-117.5	5.60	
11:15	0.75	6.73	1.036	5.33	036	17.51	-120.3	5.60	
11:20	0.75	6.72	1.036	5.17	0.37	17.47	-124.4	5.60	
11:25	—	—	—	Collect		Sample	—	—	—

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 @ 11.5 Ft btoc

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	OB-06	11:25
[X]	VFA's		OB-06	11:25
[X]	Sulfate		OB-06	11:25
[X]	Methane/Ethene		OB-06	11:25
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments, 2016 Semi-Annual Sampling Event
DATE: 10/26/16
SITE ID: MW-08
SITE TYPE: Monitor Well
SITE ACTIVITY: START 08:20 END 10:04
JOB NUMBER: 3031152028.03

WATER LEVEL

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	4.95 FT	WELL DEPTH	25.3 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	7.45 FT	SCREEN LENGTH	10 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	2.50 FT	DRAWDOWN VOLUME	0.4 GAL	PRODUCT THICKNESS	NA 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: 0.141 L/MIN
BEGIN PURGING: 08:24
END PURGING: 09:54
TOTAL VOL. PURGED: 3.31 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
08:27	FC	6.71	0.911	17.4	4.06	15.77	-52.9	6.32	lt. gray - slight odor
08:37	1.60	6.91	0.900	15.5	1.73	16.48	-103.3	7.55	black flakes
08:47	1.30	6.91	0.897	15.4	1.65	16.57	-107.9	7.77	slowed pump
08:55	1	6.91	0.897	17.5	1.58	16.56	-116.0	7.60	lt. gray - slight odor
09:02	1	6.91	0.900	19.5	1.16	16.47	-115.7	7.55	black flakes
09:09	1	6.90	0.901	30.2	0.92	16.34	-116.1	7.54	
09:16	1	6.91	0.911	29.3	0.77	16.37	-115.0	7.51	
09:23	1	6.91	0.902	27.1	0.68	16.41	-112.5	7.49	
09:33	1.4	6.90	0.932	19.2	0.56	16.37	-108.8	7.49	cloudy - slight odor
09:40	1	6.91	0.938	12.4	0.54	16.43	-107.4	7.47	clear - slight odor
09:47	1	6.90	0.946	9.43	0.51	16.37	-105.6	7.46	black flakes
09:54	1	6.90	0.951	8.32	0.50	16.34	-102.5	7.45	
10:00			Collect	Sample					

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 @ 20ft btoc

Pre		Post
1.387	Cond	1.413
7.00	pH	7.00
3.88	pH	4.00
250.2	ORP	240.1

SIGNATURE: [signature]

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	DUP-08	10:00
[X]	VFA's		MW-08	10:00
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/25/2016

SITE ID: TW-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 09:00 END

JOB NUMBER: 3031152028.03

WATER LEVEL

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	9.22 FT	WELL DEPTH	17.3 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	12.20 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	2.98 FT	DRAWDOWN VOLUME	0.477 GAL	PRODUCT THICKNESS	NA 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: 0.118 L/MIN

BEGIN PURGING: 09:17

END PURGING: 10:23

TOTAL VOL. PURGED: 2.20 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
09:15	FC	7.23	0.739	5.06	3.70	14.57	244.8	10.18	clear - no odor
09:25	1.3	7.14	0.727	3.72	1.86	14.70	231.2	11.21	
09:32	0.80	7.12	0.727	3.82	1.74	14.74	229.4	11.60	
09:39	0.80	7.10	0.762	1.39	1.68	14.77	186.1	11.95	
09:55	2	7.03	0.883	1.53	1.59	14.54	-30.8	12.34	
10:02	0.85	7.01	0.908	1.20	1.46	14.50	-36.2	12.42	slowed pump
10:09	0.75	6.97	0.963	0.58	1.15	14.09	-40.0	12.38	
10:16	0.75	6.97	0.964	0.51	1.11	14.10	-42.0	12.31	
10:23	0.75	6.95	0.968	0.57	1.08	14.14	-45.1	12.25	clear - no odor
10:30	~~~	~~~	Coll	ect	Sample	~~~	~~~	~~~	~~~

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 @ 14.5' ft btoc

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	TW-04	10:30
[X]	VFA's		TW-04	10:30
[X]	Sulfate		TW-04	10:30
[X]	Methane/Ethene		TW-04	10:30
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/26/16

SITE ID: TW-09

SITE TYPE: Monitor Well

SITE ACTIVITY: START 11:36 END 13:05

JOB NUMBER: 3031152028.03

WATER LEVEL

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	11.22 FT	WELL DEPTH	17.70 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	11.54 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	0.32 FT	DRAWDOWN VOLUME	0.051 GAL	PRODUCT THICKNESS	NA 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: ~~0.30~~ 0.108 L/MIN

BEGIN PURGING: 11:40

END PURGING: 12:57

TOTAL VOL. PURGED: 2.16 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
11:43	FC	6.65	0.893	29.4	1.81	15.86	1.6	11.38	cloudy - No odor
11:53	1.3	6.65	0.898	13.1	2.25	16.06	19.2	11.44	slowed pump
12:03	1	6.61	0.950	5.71	1.21	16.21	37.4	11.48	clear - No odor
12:13	1.1	6.62	0.967	2.89	0.95	16.23	41.5	11.50	
12:23	1.1	6.62	0.973	2.46	0.78	16.36	44.2	11.52	
12:33	1.1	6.63	0.974	2.00	0.67	16.53	48.4	11.53	
12:43	1.1	6.63	0.973	1.66	0.54	16.66	52.9	11.53	
12:50	0.80	6.64	0.972	1.31	0.56	16.73	55.0	11.54	
12:57	0.80	6.64	0.971	1.17	0.58	16.80	57.0	11.54	
13:00			collect Sample						

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 @ 15Ft btoc

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	TW-09	13:00
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/26/16

SITE ID: TW-17

SITE TYPE: Monitor Well

SITE ACTIVITY: START 14:24 END

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

INITIAL DEPTH TO WATER	7.75 FT	WELL DEPTH	17.04 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	10.70 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	2.95 FT	DRAWDOWN VOLUME	0.47 GAL	PRODUCT THICKNESS	NA 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: 0.121 L/MIN

BEGIN PURGING: 14:30

END PURGING: 16:24

TOTAL VOL. PURGED: 3.58 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
14:34	FC	6.62	1.492	38.7	2.13	14.05	-61.4	8.35	cloudy - odor
14:44	1.4	6.70	1.517	52.7	2.09	14.47	-77.5	9.35	lt. gray - odor
14:54	1.3	6.72	1.476	63.6	1.10	14.73	-80.8	9.95	
15:04	1.3	6.71	1.442	61.3	0.75	14.61	-75.8	10.30	slowed pump
15:14	1.2	6.70	1.405	54.5	0.56	14.57	-72.2	10.52	
15:24	1.2	6.70	1.313	40.4	0.52	14.31	-75.4	10.61	slowed pump
15:34	1.2	6.69	1.286	35.4	0.56	14.21	-75.6	10.65	cloudy - slight odor
15:44	1.1	6.69	1.272	31.5	0.56	14.09	-73.7	10.64	
15:54	1.1	6.69	1.259	29.1	0.54	14.19	-77.6	10.65	
16:03	1	6.69	1.250	26.9	0.51	14.20	-80.6	10.67	
16:13	1	6.69	1.248	24.8	0.47	14.11	-79.2	10.68	
16:18	0.75	6.69	1.245	22.1	0.44	14.16	-80.2	10.68	
16:24	0.75	6.68	1.255	23.0	0.42	14.02	-81.5	10.69	
16:30			Collect Sample						

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 Ft btoc

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	TW-17	16:30
[X]	VFA's		TW-17	16:30
[X]	Sulfate		TW-17	16:30
[X]	Methane/Ethene		TW-17	16:30
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/26/16

SITE ID: TW-20

SITE TYPE: Monitor Well

SITE ACTIVITY: START 13:07 END 14:23

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER _____

PROTECTIVE CASING STICKUP (FROM GROUND): 2.3 FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.07 FT

INITIAL DEPTH TO WATER	12.56 FT	WELL DEPTH	17.22 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	13.20 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	0.64 FT	DRAWDOWN VOLUME	0.102 GAL	PRODUCT THICKNESS	NA 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: 0.132 L/MIN

BEGIN PURGING: 13:14

END PURGING: 14:17

TOTAL VOL. PURGED: 2.16 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
13:17	FC	6.92	0.944	3.53	2.68	13.93	84.0	12.78	Clear - No odor
13:27	1.6	6.84	0.949	1.24	2.05	14.40	79.7	13.05	Slowed pump
13:37	1.3	6.82	0.973	0.78	1.68	14.44	77.5	13.12	
13:45	1	6.83	0.976	0.53	1.39	14.25	76.9	13.16	Slowed pump
13:55	1.25	6.85	0.959	0.51	1.05	14.10	76.9	13.18	Clear - No odor
14:05	1.25	6.87	0.944	0.50	0.83	14.00	77.5	13.21	
14:11	0.75	6.87	0.938	0.60	0.77	13.91	78.6	13.21	
14:17	0.75	6.87	0.933	0.38	0.77	13.85	79.4	13.20	
14:20			collect		Sample				

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 ft btoc

SIGNATURE: _____

NOTES

	Preservation	Sample Name	Time Collected
[X] VOC (modified list)	HCL	TW-20	14:20
[ ] VFA's			
[ ] Sulfate			
[ ] Methane/Ethene			
[ ] Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/26/16

SITE ID: W-5

SITE TYPE: Monitor Well

SITE ACTIVITY: START 16:43 END

JOB NUMBER: 3031152028.03

WATER LEVEL

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	5.32 FT	WELL DEPTH	21.8 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	2 IN
FINAL DEPTH TO WATER	7.79 FT	SCREEN LENGTH	5 FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	2.47 FT	DRAWDOWN VOLUME	0.395 GAL	PRODUCT THICKNESS	NA 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: 0.111 L/MIN

BEGIN PURGING: 16:47

END PURGING: 17:56

TOTAL VOL. PURGED: 2 GAL (purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
16:50	FC	6.74	1.157	5.51	5.33	14.55	-44.5	6.00	Clear - slight odor
17:00	1.5	6.68	1.182	4.66	1.79	15.01	-47.1	7.45	slowed pump
17:10	1.2	6.67	1.181	2.93	0.90	15.05	-47.5	7.55	
17:20	1.2	6.65	1.185	1.35	0.52	14.96	-44.3	8.05	Clear - slight odor
17:30	1.2	6.64	1.193	1.45	0.76	14.90	-41.4	8.22	slowed - pump
17:40	0.75	6.62	1.198	1.58	0.45	14.57	-35.2	7.95	
17:48	0.75	6.60	1.198	1.36	0.45	14.53	-33.9	7.85	
17:56	0.75	6.63	1.201	1.56	0.44	14.64	-32.8	7.81	clear - slight odor
18:00			Collect Sample						

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 @ 19.3ft btoc

SIGNATURE: mlsl

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	W-5	18:00
[X]	VFA's		W-5	18:00
[X]	Sulfate		W-5	18:00
[X]	Methane/Ethene		W-5	18:00
[X]	Duplicate		Dup-01	18:00

Dup-01

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event
DATE: 10/27/16
SITE ID: BR-01
SITE TYPE: Monitor Well
SITE ACTIVITY: START 12:46 END
JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): 2.3 FT
PROTECTIVE CASING / WELL DIFFERENCE: NA FT

INITIAL DEPTH TO WATER	12.43 FT	WELL DEPTH	38.6 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	12.85 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	0.42 FT	DRAWDOWN VOLUME	0.273 GAL	PRODUCT THICKNESS	NA 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: 0.134 L/MIN
BEGIN PURGING: 12:50
END PURGING: 13:58
TOTAL VOL. PURGED: 2.38 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
12:54	FC	7.61	0.690	17.6	3.84	11.43	-154.5	12.60	clear - NO odor
13:04	1.6	7.30	0.876	9.50	1.09	12.38	-140.0	12.52	slowed pump
13:11	1	7.15	0.931	6.68	0.65	12.34	-122.6	12.90	
13:18	1	7.12	0.944	4.07	1.44	12.33	-108.8	12.95	slowed pump
13:26	1	6.94	1.011	2.91	1.45	12.19	-91.9	12.93	clear - NO odor
13:34	1	6.91	1.025	2.51	1.68	12.16	-81.2	12.90	
13:42	1	6.88	1.031	2.54	1.71	12.24	-74.9	12.86	
13:50	1	6.88	1.033	5.83	1.67	12.27	-72.7	12.85	
13:58	1	6.88	1.034	1.64	1.65	12.36	-72.6	12.85	
14:00			collect	Sample					

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 @ 23.5 ft btoc

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	BR-01	14:00
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/27/16

SITE ID: BR-02

SITE TYPE: Monitor Well

SITE ACTIVITY: START 11:4 END 12:45

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] TOP OF WELL RISER
- [ ] TOP OF PROTECTIVE CASING
- [ ] OTHER

PROTECTIVE CASING STICKUP (FROM GROUND): — FT

PROTECTIVE CASING / WELL DIFFERENCE: 0.45 FT

INITIAL DEPTH TO WATER	22.50 FT	WELL DEPTH	44 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	22.82 FT	SCREEN LENGTH	N/A FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	0.32 FT	DRAWDOWN VOLUME	0.208 GAL	PRODUCT THICKNESS	NA 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: 0.098 L/MIN

BEGIN PURGING: 11:42

END PURGING: 12:35

TOTAL VOL. PURGED: 1.35 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
11:45	FC	7.62	0.595	13.7	1.79	12.19	-105.4	22.62	Clear - No odor
11:55	1	7.56	0.583	11.3	0.58	12.27	-146.1	22.65	
12:05	0.9	7.55	0.576	7.34	0.49	12.30	-154.0	22.70	
12:15	1.1	7.54	0.574	5.90	0.44	12.27	-156.2	22.77	
12:25	1.1	7.52	0.574	4.18	0.43	12.06	-151.0	22.82	slowed pump
12:35	0.8	7.52	0.576	3.35	0.45	11.98	-157.6	22.82	
12:40			collect		sample				

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 @ 25.4ft BGS

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	BR-02	12:40
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments, 2016 Semi-Annual Sampling Event
DATE: 10/27/16
SITE ID: BR-03
SITE TYPE: Monitor Well
SITE ACTIVITY: START 07:55 END 09:30
JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT: [X] TOP OF WELL RISER; [ ] TOP OF PROTECTIVE CASING; [ ] OTHER ____

PROTECTIVE CASING STICKUP (FROM GROUND)	2.2 FT	PROTECTIVE CASING / WELL DIFFERENCE	— FT				
INITIAL DEPTH TO WATER	10.0 FT	WELL DEPTH	40.1 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	11.36 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	NA PPM	WELL INTEGRITY: CAP	YES ✓
DRAWDOWN	1.36 FT	DRAWDOWN VOLUME	0.584 GAL	PRODUCT THICKNESS	NA 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	0.136 L/MIN	BEGIN PURGING	08:02	END PURGING	09:17

TOTAL VOL. PURGED: 2.65 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
08:05	FC	7.04	0.741	21.5	3.46	11.79	88.0	10.22	clear - No odor
08:15	1.6	7.78	0.750	16.0	0.69	13.07	-178.6	10.75	
08:25	1.6	7.54	0.754	12.4	0.48	13.35	-171.7	11.12	Slowed pump
08:35	1.3	7.73	0.776	7.06	0.46	12.72	-190.6	11.22	
08:45	1.3	7.57	0.786	5.08	0.48	12.56	-166.0	11.28	Clear - No odor
08:51	0.80	7.55	0.787	3.71	0.50	12.63	-148.7	11.31	
08:57	0.80	7.51	0.787	3.24	0.47	12.61	-122.8	11.33	
09:03	0.80	7.50	0.789	4.25	0.47	12.69	-118.8	11.35	Slowed pump
09:10	0.80	7.48	0.792	3.01	0.45	12.67	-116.3	11.35	
09:17	0.80	7.47	0.797	2.71	0.47	12.66	-115.6	11.35	

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 @ 23.54 btoc

Pre	col	Post
1.417	Cond	1.413
7.02	pH	7.00
3.99	pH	4.00
243.6	ORP	240.0

SIGNATURE: [signature]

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	BR-03	09:20
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/27/16

SITE ID: BR-04

SITE TYPE: Monitor Well

SITE ACTIVITY: START 10:37 END 11:39

JOB NUMBER: 3031152028.03

WATER LEVEL

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	18.03 FT	WELL DEPTH	44.2 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	4 IN
FINAL DEPTH TO WATER	18.03 FT	SCREEN LENGTH	N/A FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	0 FT	DRAWDOWN VOLUME	0 GAL	PRODUCT THICKNESS	NA 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: 0.160 L/MIN

BEGIN PURGING: 10:39

END PURGING: 11:30

TOTAL VOL. PURGED: 2.13 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
10:42	FC	7.90	1.197	9.38	2.54	12.25	-144.3	18.03	Clear - slight odor
10:52	1.6	7.49	1.277	4.50	0.64	12.69	-183.0	18.03	
11:02	1.6	7.05	1.261	1.82	0.89	12.65	-116.4	18.03	
11:07	0.8	7.05	1.306	1.09	1.14	12.42	-106.7	18.03	
11:15	1.3	7.01	1.379	0.55	1.41	12.59	-95.8	18.03	
11:20	0.8	7.00	1.475	1.80	1.46	12.57	-84.9	18.03	
11:25	0.8	7.00	1.507	0.78	1.44	12.81	-81.0	18.03	
11:30	0.8	6.99	1.524	1.16	1.42	12.68	-79.7	18.03	
11:32			Collect Sample						

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 @ 26.5Ft btoc

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	BR-04	11:32
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/27/16

SITE ID: BR-10

SITE TYPE: Monitor Well

SITE ACTIVITY: START 09:32 END 10:30

JOB NUMBER: 3031152028.03

WATER LEVEL

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	17.62 FT	WELL DEPTH	47 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	6 IN
FINAL DEPTH TO WATER	17.62 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	0 FT	DRAWDOWN VOLUME	6 GAL	PRODUCT THICKNESS	NA 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: 0.135 L/MIN

BEGIN PURGING: 09:39

END PURGING: 10:22

TOTAL VOL. PURGED: 1.51 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
09:42	FC	7.75	0.521	42.6	3.05	12.59	-129.8	17.62	Cloudy - no odor
09:52	1.4	7.72	0.527	11.4	0.74	12.94	-115.4	17.62	Clear - no odor
10:02	1.4	7.72	0.529	7.19	0.56	13.12	-102.7	17.62	
10:06	0.8	7.70	0.530	6.67	0.46	13.01	-126.7	17.62	
10:15	0.9	7.69	0.532	4.92	0.45	13.06	-120.0	17.62	
10:22	0.9	7.68	0.533	5.04	0.46	13.14	-127.4	17.62	
10:25	—	—	—	Collect	Sample	—	—	—	—

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 @ 22.5 Ft btoc

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	BR-10	10:25
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/25/16

SITE ID: BR-15

SITE TYPE: Monitor Well

SITE ACTIVITY: START 14:20 END

JOB NUMBER: 3031152028.03

WATER LEVEL

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	19.50 FT	WELL DEPTH	72 FT	PID AMBIENT AIR	NA PPM	WELL DIAMETER	6 IN
FINAL DEPTH TO WATER	21.81 FT	SCREEN LENGTH	NA FT	PID WELL MOUTH	NA PPM		
DRAWDOWN	2.31 FT	DRAWDOWN VOLUME	3.47 GAL	PRODUCT THICKNESS	NA 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: 0.138 L/MIN

BEGIN PURGING: 14:24

END PURGING: 16:43

TOTAL VOL. PURGED: 4.97 GAL
(purge rate (L/min) x duration (min) x 0.26 gal/L)

PURGE DATA

Time	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
14:30	FC	8.17	0.347	3.38	2.44	15.83	-82.8	19.61	clear- slight odor
14:42	2	7.98	0.321	1.53	0.48	15.29	-107.6	19.95	
14:54	2	8.04	0.313	2.09	0.35	14.99	-99.7	20.30	
15:05	2	8.07	0.311	1.44	0.35	14.89	-53.0	20.60	
15:16	2	8.20	0.304	1.20	0.31	15.06	-70.3	20.90	
15:27	2	8.17	0.295	1.88	0.29	15.27	-97.2	21.20	slowed pump
15:37	1.3	8.09	0.286	1.30	0.29	14.80	-146.5	21.33	Clear- NO odor
15:47	1.2	8.22	0.282	1.19	0.25	14.88	-151.8	21.45	
15:57	1.2	8.20	0.280	1.26	0.25	14.66	-207.6	21.58	slowed pump
16:07	1	8.24	0.281	1.14	0.26	14.60	-163.5	21.65	
16:17	1	8.22	0.282	1.11	0.23	14.45	-161.7	21.73	clear- slight odor
16:27	1	8.21	0.281	1.36	0.24	14.36	-209.4	21.79	
16:35	0.80	8.23	0.282	1.28	0.24	14.38	-211.7	21.80	
16:43	0.80	8.24	0.283	1.17	0.25	14.40	-212.8	21.80	

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 @ 29.5 Ft btoc

SIGNATURE:

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	BR-15	16:45
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

collect MS/MSD @16:45

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/27/16

SITE ID: QAFB-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 14:22 END 14:28

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] 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	NA PPM	WELL DIAMETER	IN
FINAL DEPTH TO WATER	FT	SCREEN LENGTH	FT	PID WELL MOUTH	NA PPM	WELL INTEGRITY: CAP	YES NO N/A
DRAWDOWN	FT	DRAWDOWN VOLUME	GAL	PRODUCT THICKNESS	NA 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: ____ 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	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
14:25	–	Poured DI water into sample bottles							

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 @ _____

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	QAFB-01	14:25
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

1

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/27/16

SITE ID: QARB-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 10:29 END 10:33

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] 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	NA PPM	WELL DIAMETER	____ IN
FINAL DEPTH TO WATER	____ FT	SCREEN LENGTH	____ FT	PID WELL MOUTH	NA PPM	WELL INTEGRITY: CAP	YES NO N/A
DRAWDOWN	____ FT	DRAWDOWN VOLUME	____ GAL	PRODUCT THICKNESS	NA 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: ____ 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	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
14:30 -	poured DI water over WL indicator								

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 @ _____

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	QARB-01	14:30
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/27/16

SITE ID: QATB-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 14:15 END 14:27

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] 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: NA PPM

WELL DIAMETER: ____ IN

FINAL DEPTH TO WATER: ____ FT

SCREEN LENGTH: ____ FT

PID WELL MOUTH: NA PPM

WELL INTEGRITY: CAP / CASING / LOCKED / COLLAR — YES / NO / N/A

DRAWDOWN: ____ FT

DRAWDOWN VOLUME: ____ GAL

PRODUCT THICKNESS: NA 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	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
	Lab	provided							

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 @ _____

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	QATB-01	14:30
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

Amec Foster Wheeler E&I, Inc.

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Former Taylor Instruments 2016 Semi-Annual Sampling Event

DATE: 10/27/16

SITE ID: IDW-01

SITE TYPE: Monitor Well

SITE ACTIVITY: START 14:45 END 14:55

JOB NUMBER: 3031152028.03

WATER LEVEL

MEASUREMENT POINT
- [X] 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	NA PPM	WELL DIAMETER	____ IN
FINAL DEPTH TO WATER	____ FT	SCREEN LENGTH	____ FT	PID WELL MOUTH	NA PPM	WELL INTEGRITY: CAP	YES / NO / N/A
DRAWDOWN	____ FT	DRAWDOWN VOLUME	____ GAL	PRODUCT THICKNESS	NA 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: ____ 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	VOL Purged (L)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	DO (mg/L)	TEMPERATURE (°C)	ORP (mV)	WATER LEVEL	Comments
14:50 – collect sample from purge water drum using peri-pump.									

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 @ _____

SIGNATURE: _____

NOTES

		Preservation	Sample Name	Time Collected
[X]	VOC (modified list)	HCL	IDW-01	14:50
[ ]	VFA's			
[ ]	Sulfate			
[ ]	Methane/Ethene			
[ ]	Duplicate			

APPENDIX F

WELL CONSTRUCTION INFORMATION

Appendix F
Well Construction Information

2016 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
Checked by/Date: CRW 1/18/11