

REPORT OF THE SIXTH PERFORMANCE GROUNDWATER MONITORING EVENT

Former TORX Facility

4366 North Old US Highway 31
Rochester, Indiana

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ACRONYMS

µg/L	micrograms per liter
ABC	Anaerobic Biochem (ABC®)
Amec Foster Wheeler	Amec Foster Wheeler Environment & Infrastructure, Inc.
cells/mL	cells per milliliter
CVOC	chlorinated volatile organic compounds
DCE	dichloroethene
DHC	Dehalococcoides bacteria
DO	dissolved oxygen
ERD	Enhanced Reductive Dechlorination
IDEM	Indiana Department of Environmental Management
ISCR	In-situ Chemical Reduction
mg/L	milligrams per liter
mV	millivolts
NTU	Nephelometric Turbidity Units
ORP	oxygen reduction potential
QAPP	Quality Assurance Project Plan
qPCR	Quantitative Polymerase Chain Reaction
RWP	Remediation Work Plan
TCE	trichloroethene
TOC	total organic carbon
Site	former TORX facility
USEPA	U.S. Environmental Protection Agency
VCR	vinyl chloride reductase
VFA	volatile fatty acid
VOC	Volatile organic compound
ZVI	zero valent iron

1.0 INTRODUCTION

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has prepared this report to document performance monitoring results associated with implementation of In-Situ Chemical Reduction (ISCR) and Enhanced Reductive Dechlorination (ERD) remedies for groundwater containing chlorinated volatile organic compounds (CVOCs) at and in the vicinity of the former TORX Facility (now operated by Acument) located at 4366 North Old US Highway 31 in Rochester, Indiana (Site). A Site location map is presented as **Figure 1**.

2.0 REMEDIAL INJECTION ACTIVITIES

Amec Foster Wheeler was retained by Textron, Inc. to conduct remedial injection activities at the former TORX facility to treat groundwater containing CVOCs. The overall remedial approach involves treating the portion of the source area near the Western Pond behind (west of) the facility using ISCR technology, and stimulating biologically mediated reductive dechlorination at the remainder of the source area west of the building, beneath the manufacturing building, and in most of the downgradient plume. Full-scale remediation injection activities commenced in 2015. Additional “polishing” injections were performed in 2016. The treatment zones, arrays, and monitoring well locations are shown on **Figure 2**. A summary of the remediation activities chronology is provided below.

A Remediation Work Plan (RWP) was prepared in June 2014 and submitted to the Indiana Department of Environmental Management (IDEM) for approval. IDEM approved the RWP with comments provided in September and October 2014. Amec Foster Wheeler provided a response to comments from IDEM in December 2014. The first stage of the implementation of the RWP began in November 2014 with the installation of the injection well network (305 injection wells). Details of the injection array layout and injection well construction were provided in Amec Foster Wheeler’s January 25, 2016 Report of Injection Well and Monitoring Well Installation.

Upon completion of the installation of the injection well network, implementation of the ERD remedial injection activities began in June 2015. ISCR injections were implemented in the

source area behind the building in June and July 2015. ERD injections were implemented in the source area behind the building and in downgradient treatment zones A through D between July and September 2015. The ERD injections for the source area located beneath the building were performed in February 2016. The initial full-scale remediation injection well locations are shown on **Figures 3 and 4**.

As detailed in the RWP, the performance of the remediation of the CVOCs in groundwater at the site is monitored on a regular basis through the implementation of the Performance Groundwater Monitoring Program. The results of the third Performance Groundwater Monitoring event (June 2016) indicated the need for the addition of biostimulant amendment in certain treatment arrays. Amec Foster Wheeler designed a polishing injection program to address these areas. Polishing injections were performed during October through December 2016. The 2016 polishing injection locations are shown on **Figures 5 and 6**. ERD polishing injections using formulations of Anaerobic Biochem (ABC®) were completed in the Source Area at the Western Pond, in the Source Area outside and beneath the building, and in Treatment Zones A through D. ISCR technology was also used in Treatment Zone B, targeting a silt layer beneath the shallow groundwater zone in vicinity of MW-24 and OW-3(55). The ISCR injections were implemented using a combination of zero valent iron (ZVI) and ABC®, designed to drive aquifer chemistry to a highly reductive environment. The polishing injections are documented in Amec Foster Wheeler's Report of Polishing Remedial Injections and the Fifth Performance Groundwater Monitoring Event, dated August 2017.

This report documents the sixth performance groundwater monitoring event that has been conducted following commencement of the full-scale remediation. Previous performance groundwater monitoring is documented in the following reports:

- The first performance monitoring event was conducted in August and October 2015 and is documented in Amec Foster Wheeler's Report of Remedial Injection Activities and Initial Performance Monitoring, dated 16 March 2016.
- The second performance monitoring event was conducted in February and March 2016 and is documented in Amec Foster Wheeler's Report of Remedial Injection Activities and Second Performance Monitoring, dated 06 July 2016.

- The third performance monitoring event was conducted in June 2016 and is documented in Amec Foster Wheeler's Report of the Third Remedial Injection Performance Groundwater Monitoring Event in Support of Remedial Activities, dated 16 December 2016.
- The fourth performance monitoring event was conducted in September 2016 and is documented in Amec Foster Wheeler's Report of the Fourth Remedial Injection Performance Groundwater Monitoring Event dated January 2017.
- The fifth performance monitoring event was conducted between December 2016 and February 2017 and is documented in Amec Foster Wheeler's Report of Polishing Remedial Injections and the Fifth Performance Groundwater Monitoring Event, dated August 2017.

3.0 PERFORMANCE MONITORING OBJECTIVES

Amec Foster Wheeler conducted the sixth groundwater performance monitoring sampling event in June 2017. The purpose of the groundwater performance monitoring is to assess the short-term performance of ISCR and ERD remedies implemented for the Site. The objectives of the performance monitoring are to assess the following within the Treatment Zones:

- Distribution of the remedial amendments,
- Geochemistry effects of the amendment, and
- Contaminant concentrations and transformation.

Performance monitoring results have also been used to identify refinements to the biostimulant and ISCR amendment polishing injections plans in order to optimize remedy effectiveness.

3.1 Scope of Work

Amec Foster Wheeler conducted groundwater monitoring and sampling at 43 monitoring wells located within and downgradient of the treatment zones. The sixth groundwater performance monitoring event took place between 05 June 2017 and 08 June 2017.

For most performance monitoring wells, groundwater was purged using low-flow sampling techniques. Certain smaller diameter wells were purged by bailing. Field water quality parameters were monitored during purging. Groundwater was sampled once field water quality parameters had stabilized. Groundwater samples were analyzed for volatile organic compounds (VOCs), total organic carbon (TOC), dissolved gases (methane, ethane, and ethene), select metals (iron and manganese), alkalinity, anions (nitrate, chloride, and sulfate), Dehalococcoides bacteria (DHCs) and reductase genes, and volatile fatty acids (VFAs).

4.0 BASELINE RESULTS

Baseline groundwater monitoring consisting of a complete set of analytical parameters was conducted in 2012 prior to initiating the Pilot Study. A subset of the performance monitoring wells were purged and sampled using low-flow groundwater sampling techniques.

Groundwater was assessed for geochemical parameters [oxidation-reduction potential (ORP), dissolved oxygen (DO), and pH], VOCs, anions (nitrate, chloride, and sulfate), TOC, alkalinity, DHC, dissolved gases (methane, ethane, and ethene), VFAs, and select metals (arsenic, selenium, iron, and manganese). The analytical methods used are presented in Table 1. The results of this baseline sampling, supplemented with results of routine groundwater monitoring conducted from 2012 through 2014, are included on Tables 2 through 4. We note that the baseline initial sampling event for certain wells included in the performance monitoring sampling occurred at later dates (e.g., in 2013 or 2014).

5.0 FIELD ACTIVITIES

On 05 June 2017, prior to commencing groundwater sampling, depth to groundwater measurements were collected, and groundwater elevations were calculated using the monitoring well casing elevations previously determined by a registered surveyor (Table 5). Groundwater contour maps of the remediation areas were prepared for the shallow overburden zone (**Figure 7**) and intermediate overburden zone (**Figure 8**).

Performance monitoring wells, identified on Table 1, were sampled between 06 June 2017 and 08 June 2017. The 1-inch diameter monitoring wells, MW-12 and MW-13 located east of North Old US Highway 31 and monitoring wells MW-67, MW-68, MW-71 and MW-72 located inside the Acument building were purged and sampled using disposable 0.75-inch diameter polyvinyl chloride bailers. Prior to sample collection, at least three well volumes of groundwater were removed from each well. Groundwater field parameters including pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity were measured during purging and recorded. Groundwater samples were collected directly from the bailers.

The remainder of the performance monitoring wells are 2-inch diameter and were purged and sampled using a bladder pump. Prior to sample collection, groundwater was purged from the wells using a low-flow procedure. Groundwater field parameters including pH, temperature, conductivity, ORP, dissolved oxygen, and turbidity, as well as, groundwater elevation, were measured approximately every 5 minutes until at least three sequential readings showed stabilization, i.e., +/- 0.1 for pH, +/- 10 millivolts (mV) for ORP, +/- 10 Nephelometric Turbidity Units (NTUs) for turbidity, and +/- 10% for dissolved oxygen. Upon achieving stabilization, groundwater samples were collected directly from the pump discharge tubing. Copies of the field sample collection logs are presented in Appendix A.

Groundwater samples were collected into laboratory-supplied, pre-preserved vials and labeled with the sample information. Quality control samples including field blanks, equipment blanks, and trip blanks were also submitted. Field blanks were collected by filling a laboratory supplied container with deionized water. Equipment blanks were collected by pouring deionized water through the decontaminated pump and into the sampling container. Trip blanks were prepared by the laboratory and accompanied the samples during transport. A trip blank accompanied each shipment of VOC samples.

Following sample collection, the sample containers were placed on ice in coolers and shipped under chain of custody to ALS Environmental laboratory in Holland, Michigan for VOC analysis by United States Environmental Protection Agency (USEPA) Method 8260B, as well as, TOC by Method 9060, iron and manganese by Method 6020A, alkalinity by Method A2320B, and anions by Method SW9056. Samples for VFAs and dissolved gas

analyses were shipped under chain-of-custody to Microseeps, a division of Pace Analytical, in Pittsburgh, Pennsylvania. Samples for DHCs and reductase genes were shipped under chain-of-custody to Microbial Insights in Knoxville, Tennessee.

Sampling pumps were decontaminated between wells using a liquinox wash, potable water rinse, and distilled water rinse. Dedicated sampling tubing was used to purge and sample each well, and new disposable bailers were used for sampling monitoring wells MW-12, MW-13, MW-67, MW-68, MW-71 and MW-72. Disposable equipment was changed out between each well.

6.0 ANALYTICAL METHODS AND USE

Groundwater samples were collected and analyzed to provide data pertinent to the amendment distribution, geochemical conditions, and contaminant concentrations and transformation. The analytical methods and purpose of the data is described below and in Table 1.

6.1 Amendment Distribution Indicators

6.1.1 Total Organic Carbon

The groundwater samples were analyzed for TOC by Method 9060. The amendment injected to promote ISCR and ERD provides an organic carbon source to the aquifer system. Therefore, increases in TOC relative to baseline conditions are an indicator of amendment distribution to the performance monitoring well. TOC results above 20 milligrams per liter (mg/L) are considered favorable.

6.1.2 Volatile Fatty Acids

The groundwater samples were analyzed for VFAs by Method AM23G. The injected amendment contains VFAs, and therefore VFAs are an indicator of substrate distribution to the performance monitoring wells.

6.2 Redox Conditions

6.2.1 Oxidation-Reduction Potential

ORP was measured during groundwater purging using a YSI 6920 multi-parameter water quality sonde. ORP is a potentiometric measurement of the tendency for electron transfer.

ORP is measured in voltage with positive values indicating an oxidizing environment (ability to accept electrons) and negative values indicating a reducing environment (ability to furnish electrons). A reducing environment is favorable for anaerobic reductive dechlorination of CVOCs.

6.2.2 Manganese, Iron, Nitrate, and Sulfate

The groundwater samples were analyzed for manganese and iron by Method 6020A, nitrate by Method 353.2, sulfate and chloride by Method 9056A. These constituents are competing electron acceptors for microbial respiration in the absence of oxygen. Once dissolved oxygen is depleted, anaerobic microbes typically use other electron acceptors in the following order: nitrate, manganese, ferric iron, and sulfate. Typically sufficient amendment is needed to deplete these competing electron acceptors before significant dechlorination can occur. Elevated levels of dissolved iron and manganese indicate that the groundwater geochemistry is sufficiently reducing. The preferable concentration for nitrate is < 1 mg/L and for sulfate is < 20 mg/L.

6.2.3 Dissolved Oxygen

Dissolved oxygen was measured during groundwater purging using a YSI 6920 multi-parameter water quality sonde. Dissolved oxygen readings provide data on whether aerobic or anaerobic conditions exist. In an anaerobic setting, the dissolved oxygen is depleted (<0.5 mg/L).

6.3 Dechlorinating Bacteria and Functional Genes

The groundwater samples were analyzed for DHCs and reductase genes by Quantitative Polymerase Chain Reaction (qPCR). DHCs are a bacterial group capable of complete reductive dechlorination of chlorinated hydrocarbons to ethene/ethane. An abundance of reductase functional genes is indicative of dechlorination processes at work. Vinyl chloride reductase genes facilitate complete reductive dechlorination to ethene.

6.4 Buffering

6.4.1 pH

A YSI 6920 multi-parameter water quality sonde was used to measure pH during groundwater purging. Microbial growth and the desired biological processes can be hindered or halted at low and high pH. The ideal pH range for degrading bacteria is 6 to 8.

Fermentation processes associated with the remediation can result in alteration of the natural pH. If pH is lower than 5 or higher than 9, a buffering agent may be needed to provide a suitable environment for the desired biological activity.

6.4.2 Alkalinity

The groundwater samples were analyzed for alkalinity by Method A2320B. Alkalinity, evaluated in conjunction with pH, is an indicator of buffering capacity of the aquifer. An increase in alkalinity and stable pH indicates the buffering capacity of the aquifer is sufficient to neutralize metabolic acids produced during degradation of the amendment. If the pH is lower than 5 and alkalinity remains at or below background, a buffering agent may be needed to provide a suitable environment for the desired biological activity.

6.5 Degradation of Chlorinated VOCs

6.5.1 VOCs

The groundwater samples were analyzed for VOCs by Method 8260B. The objective of the remediation is to reduce the mass of chlorinated VOCs in the groundwater to demonstrate that the downgradient plume concentrations are declining or stable. Although the CVOCs are expected to decline as a result of the remedial measures, degradation products such as dichloroethene (DCE) and vinyl chloride may temporarily increase as a result of dechlorination.

6.5.2 Dissolved Gases

The groundwater samples were analyzed for dissolved gases including methane, ethane, and ethene by Method AM20GAX. Elevated levels of methane are an indicator that fermentation is occurring under anaerobic conditions. Methane concentrations greater than 1 mg/L are considered favorable. Elevated levels of ethene and ethane are indicative that complete anaerobic dechlorination of CVOCs is occurring.

7.0 DATA EVALUATION

Tables 2 through 4 present the analytical results. The measured field parameters referenced in Section 4.0 are included in Table 1. **Figures 9 through 11** present a summary of the results of the CVOC analyses performed on samples from the monitoring wells in the treatment areas. Copies of the laboratory reports and chain-of-custodies are presented in Appendix B.

The following subsections discuss the response of the aquifer to the biostimulant and the concentration of CVOCs in each treatment area.

7.1 Source Zone Behind (West of) Building

Four monitoring wells located in the source zone behind the building were sampled for performance monitoring: MW81(27), MW59(29), PM-2, and PM-3. TOC concentrations were above 20 mg/L and VFAs are substantially present in MW-81(27), MW-59(29), and PM-3, indicating continued presence of amendment. The TOC concentration at PM-2 was 19 mg/L and the VFAs were low.

The pH at PM-3 was 4.66, which is lower than ideal for biological activity, however the concentration of alkalinity is above baseline levels. For the other three wells, the pH ranged from 5.96 to 6.27, which is acceptable for biological-based treatment. With the exception of PM-3, the ORP was negative, which indicates reducing conditions. The dissolved oxygen readings were less than 0.5 mg/L, which indicates anaerobic conditions. Iron and manganese concentrations were generally comparable or higher than baseline conditions. Nitrate and sulfate concentrations were within their target range.

Trichloroethene (TCE) remained below reporting limits in all wells, indicating remediation of the parent contaminant has occurred at this location. Some rebound was observed in the daughter products. The cis-1,2-DCE concentration at PM-3 was higher than the December 2016 sampling event result. The cis-1,2-DCE concentration at MW81(27) was lower than the December 2016 sampling event, while vinyl chloride was higher. The vinyl chloride concentrations increased by an order of magnitude or more at PM-2 and PM-3.

DHC populations were not detected at PM-3. Biological activity at PM-3 may be hindered by the acidic pH of groundwater at PM-3. Otherwise, the DHC populations are adequate for complete dechlorination and reductase genes indicate potential for biological activity.

Methane concentrations for the wells remain high, indicating anaerobic fermentation is occurring. Ethene concentrations remain elevated, indicating complete dechlorination of some of the contaminant mass.

A summary of the pertinent results for the performance monitoring wells in the Source Area Behind the Building is provided below:

Source Zone Behind Building Performance Monitoring Wells	Molar Mass % Reduction Relative to Baseline				Amendment Indicator				Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	DHC > 1E+03 cells/mL	DHC > 1E+05 cells/mL	VCR > 1E+03 cells/mL	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW-81 (27)	33%	100%	85%	-248%	YES	YES	NO	YES	YES	-	YES
MW-59(29)	99.98%	--	99.99%	99.97%	YES	YES	NO	YES	YES	-	YES
PM-2	96%	100%	99.9%	88%	NO	YES	NO	YES	YES	-	YES
PM-3	-99%	--	83%	-635%	YES	NO	NO	NO	YES	+	YES
Total (4 wells)	23%										

Conclusions

- Total CVOC mass has decreased by 23% relative to baseline, which is less than previously reported primarily due to an increase in vinyl chloride.
- Contaminant mass is substantially reduced in MW-59(29) and PM-2.
- Conditions are favorable for continued reductive dechlorination except at PM-3. Acidic conditions may be hindering biological activity at PM-3.

7.2 Source Zone Inside (Beneath) Building

Seven monitoring wells located in the source zone beneath the building were sampled for performance monitoring: MW-67, MW-68, MW-71, MW-72, MW-76, MW-77, and MW-78. The contaminant mass has been fully reduced at MW-78, and therefore this well is not included in the subsequent discussions on indicator parameters. The indicator parameter discussion is focused on six wells: MW-67, MW-68, MW-71, MW-72, MW-76, and MW-77.

TOC concentrations were above 20 mg/L in all six wells. VFAs were substantially present in the wells, indicating effective substrate distribution.

The pH ranged from 5.29 to 6.63, which is adequate for biological-based treatment. The ORP was negative for all six of the wells, which indicates reducing conditions. Dissolved oxygen readings were greater than 1 mg/L except at MW-76 and MW-77. Except at MW-67, iron and manganese concentrations were comparable or higher than baseline conditions. The iron concentration at MW-67 was higher than baseline. Nitrate and sulfate concentrations were within their target range.

A significant reduction in CVOC mass is observed in all the wells except for MW-76 and MW-77. TCE was below reporting limits in all the wells. The cis-1,2-DCE concentrations at MW-68 and MW-76 decreased significantly relative to the December 2016 monitoring event results. Otherwise, the cis-1,2-DCE concentrations were comparable to the previous event. The vinyl chloride concentrations at MW-68, MW-72, and MW-76 decreased relative to the December 2016 results, while the vinyl chloride concentrations at MW-67, MW-71, and MW-77 increased relative to the December 2016 results.

The DHC populations were adequate for complete dechlorination. The reductase genes indicate potential for biological activity. The vinyl chloride reductase (VCR) gene concentration at MW-76 is slightly low.

Methane concentrations remain high, indicating anaerobic fermentation is occurring. Ethene concentrations were high, indicative that complete anaerobic dechlorination is occurring.

A summary of the pertinent results for the performance monitoring wells in the Source Area Inside (Beneath) the Building is provided below:

Source Zone Inside (Beneath) Building Performance Monitoring Wells	Molar Mass % Reduction Relative to Baseline				Amendment Indicator				Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	DHC > 1E+03 cells/mL	DHC > 1E+05 cells/mL	VCR > 1E+03 cells/mL	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW-67	99.6%	--	99.9%	97%	YES	YES	NO	YES	YES	-	NO
MW-68	97%	--	99.8%	82%	YES	YES	NO	YES	YES	-	NO
MW-71	98.5%	--	99.97%	94%	YES	YES	NO	YES	YES	-	NO
MW-72	99.98%	--	99.99%	99.94%	YES	YES	NO	YES	YES	-	NO
MW-76	-117%	--	91%	-1592%	YES	YES	NO	NO	YES	-	YES
MW-77	-31%	--	94%	-382%	YES	YES	NO	YES	YES	-	NO
MW-78	100%	--	100%	100%	YES	NO	NO	NO	NO	-	NO
Total (7 wells)	92%										

Conclusions

- The total molar mass for the primary CVOCs has thus far been reduced by 92% in the Source Zone Inside (Beneath) the Building based upon data from the seven performance monitoring wells relative to baseline. This represents a 5% increase relative to the fifth performance monitoring report.
- Contaminant mass has been fully reduced at MW-78, and contaminant mass reduction is nearly complete at MW-72.
- While total CVOC mass at MW-76 and MW-77 has increased overall compared to baseline, the remaining mass is now primarily daughter product vinyl chloride.

7.3 Treatment Zone A

Nine monitoring wells located in Treatment Zone A were sampled for performance monitoring: MW-6C, MW-12, MW-13, MW-62, MW-20(35), MW-20(51), MW-82, OW-1(28), and OW-1(39). The contaminant mass at MW-20(35), MW-20(51), MW-82(58), and OW-1(39) has been reduced by 100%, and therefore these wells are not included in the subsequent discussions on indicator parameters. The indicator parameter discussion is

focused on five wells: MW-6C, MW-12, MW-13, MW-62, and OW-1(28). Field parameters were not collected at MW-12 because it purged to dryness.

TOC concentrations were above 20 mg/L in MW-12 and MW-62, but low in the remaining wells. VFAs were substantially present at MW-12 and MW-62 but low at the other three wells.

The pH ranged from 5.62 to 6.95 in the five wells, which is adequate for biological-based treatment. ORP indicates reducing conditions in the wells. The dissolved oxygen readings at MW-6C, MW20(35), and MW-62(36) were less than 0.5 mg/L, indicating anaerobic conditions. The dissolved oxygen reading at MW-13 indicates aerobic conditions. Iron and manganese concentrations were comparable or higher than baseline conditions, except at MW-13. At MW-13 the iron concentration was lower than baseline. Nitrate concentrations were within target range. Sulfate concentrations were within target range except at MW-13. The sulfate concentration at MW-13 was 56 mg/L.

TCE was below reporting limits in all the wells. Cis-1,2-DCE and vinyl chloride concentrations at MW-12 and MW-62 decreased relative to the February 2017 monitoring event results. The cis-1,2-DCE concentration and vinyl chloride concentration increased at MW-13. The cis-1,2-DCE concentration increased at MW-6C but the vinyl chloride concentration decreased relative to the previous monitoring event. The concentrations of daughter products were unchanged at OW-1(28) relative to the previous event.

The DHC populations were generally sufficient for complete reductive dechlorination. The reductase genes indicate potential for continued biological activity.

Methane concentrations were high in the wells, indicating anaerobic fermentation is occurring. Ethene was substantially present in MW-6C, MW-13, MW-62(36), and OW-1(39), indicating complete reductive dechlorination is occurring, but was lower in the remaining wells.

A summary of the pertinent results for the performance monitoring wells in Treatment Zone A is provided below:

Treatment Zone A Performance Monitoring Well	Molar Mass % Reduction Relative to Baseline				Amendment Indicator				Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	DHC > 1E+03 cells/mL	DHC > 1E+05 cells/mL	VCR > 1E+03 cells/mL	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW-6C	-4%	--	-39%	27%	NO	YES	NO	YES	YES	-	YES
MW-12	99.7%	--	99.8%	98.6%	YES	YES	NO	YES	NO	NM	NO
MW-13	89%	--	88%	91%	NO	YES	YES	YES	YES	-	NO
MW-62(36)	99.9%	--	100%	99.9%	YES	YES	NO	YES	YES	-	YES
MW-20(35)	100%	--	100%	100%	NO	YES	NO	YES	NO	-	YES
MW-20(51)	100%	--	100%	100%	NO	NO	NO	NO	NO	-	NO
MW-82(58)	100%	100%	100%	100%	NO	NO	NO	NO	NO	-	NO
OW-1(28)	99.8%	--	100%	99.5%	NO	YES	NO	YES	YES	-	NO
OW-1(39)	100%	--	100%	100%	NO	NO	NO	NO	NO	-	NO
Total (9 wells)	86%										

NM = not measured

Conclusions

- The total molar mass for the primary CVOCs has thus far been reduced by 86% in Treatment Zone A based upon data from the nine performance monitoring wells relative to baseline.
- Contaminant mass has been fully reduced in MW-20(35), MW-20(51), MW-82(58), and OW-1(39).
- Reductive dechlorination may be presently suppressed at MW-13 due to aerobic conditions, though the contaminant mass has been reduced by 89% from baseline.
- The carbon source is low at monitoring wells MW-6C and MW-13.

7.4 Treatment Zone B

Seven monitoring wells located in Treatment Zone B are monitored for performance monitoring: MW-14, MW-24(24.9), MW-24(55.4), OW-2(33), OW-2(53), OW-3(35), and OW-3(55).

Contaminant mass has historically not been present at MW-24(24.9), and the mass at OW-2(53) and OW-3(35) has been reduced by 100%; therefore, these wells are not included in the subsequent discussions on indicator parameters. The indicator parameter discussion is focused on four wells: MW-14, MW-24(55.4), OW-2(33), and OW-3(55).

TOC concentrations at MW-14, MW-24(55.4), and OW-3(55) were above 20 mg/L, and the TOC concentration at OW-2(33) was 18 mg/L. VFAs were mostly substantially present in all four wells, indicating effective substrate distribution.

The pH at the four wells ranged from 6.69 to 6.89, which is within the ideal range for biological-based treatment. The ORP was negative, which indicates reducing conditions. Dissolved oxygen readings were below 1 mg/L, except at OW-3(55). Iron and manganese concentrations were generally comparable or higher than baseline conditions. Nitrate and sulfate concentrations in the four wells were within their target range.

A reduction in CVOC mass is observed in all the wells except MW-24(55). However, reductive dechlorination is occurring at MW-24(55) based on the decrease of TCE and increase of daughter compounds. TCE was below reporting limits in all the wells. Cis-1,2-DCE concentrations were lower or comparable to the previous sampling event. Vinyl chloride concentrations were lower than the previous sampling event except at MW-24(55.4). The increase in vinyl chloride at MW-24(55.4) coincides with a recent decrease in cis-1,2-DCE, which is reflective of the dechlorination process.

The DHC populations were adequate for complete dechlorination. The reductase genes indicate potential for biological activity.

Methane concentrations were high in all four wells, indicating anaerobic fermentation is occurring. Ethene concentrations were high at all four wells. High ethene concentrations are indicative that complete anaerobic dechlorination is occurring.

A summary of the pertinent results for the performance monitoring wells in Treatment Zone B is provided below:

Treatment Zone B Performance Monitoring Well	Molar Mass % Reduction Relative to Baseline				Amendment Indicator				Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	DHC > 1E+03 cells/mL	DHC > 1E+05 cells/mL	VCR > 1E+03 cells/mL	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW-14	99%	100%	97%	100%	YES	YES	YES	YES	YES	-	NO
MW-24(24.9)	--	--	--	--	NO	NO	NO	NO	NO	-	NO
MW-24(55.4)	-38%	100%	11%	--	YES	YES	YES	YES	YES	-	NO
OW-2(33)	99%	--	99%	98%	NO	YES	NO	YES	YES	-	NO
OW-2(53)	100%	--	100%	100%	NO	NO	NO	NO	NO	-	NO
OW-3(35)	100%	100%	100%	100%	NO	YES	NO	YES	NO	-	NO
OW-3(55)	96%	100%	90%	-45%	YES	YES	NO	YES	YES	-	NO
Total (7 wells)	96%										

Conclusions

- The total molar mass for the primary CVOCs has thus far been reduced by 96% in Treatment Zone B based upon data from the seven performance monitoring wells relative to baseline.
- Contaminant mass historically has not been present in MW-24(24.9) and has been fully reduced in OW-2(53) and OW-3(35).
- A significant reduction in the concentrations of degradation products has occurred at OW-2(33) and OW-3(55) relative to the previous performance monitoring events.
- A recent increase in daughter products indicates reductive dechlorination is occurring at MW-24(55.4).

7.5 Treatment Zone C

Six monitoring wells located in Treatment Zone C were sampled for performance monitoring: MW-15, MW-25(16.4), MW-25(32.6), MW-25(45.2), OW-4(35), and OW-4(54). Contaminant mass has been reduced 100% or is not present at MW-25(32.6), MW-25(45.2), and OW-4(54) and; therefore, these wells are not included in the subsequent discussion on indicator parameters. The indicator parameter discussion is focused on three wells: MW-15, MW-25(16.4), and OW-4(35).

TOC concentrations were above 20 mg/L at MW-15 and OW-4(35). Polishing injections were not conducted on the interval screened by MW-25(16.4), and the TOC concentration at this well was below 20 mg/L. VFAs were substantially present except at MW-25(16.4).

The pH ranged from 6.68 to 7.01 in the three wells, which is ideal for biological-based treatment. ORP indicates reducing conditions in the wells. Dissolved oxygen readings were less than 0.5 mg/L, indicating anaerobic conditions. Iron and manganese concentrations were comparable or higher than baseline conditions. Nitrate and sulfate concentrations were within their target range.

A reduction in CVOC mass is observed in all the wells. TCE was below reporting limits in all the wells. Significant reductions in cis-1,2-DCE and vinyl chloride concentrations were observed in the two wells (MW-15 and OW-4(35)) relative to the previous sample event.

DHC populations were adequate for dechlorination at all three wells. The reductase genes indicate potential for biological activity except at OW-4(35).

Methane concentrations were very high in the wells, and ethene was substantially present at MW-15. High methane concentrations indicate that anaerobic fermentation is occurring. High ethene concentrations are indicative that complete anaerobic dechlorination is occurring.

A summary of the pertinent results for the performance monitoring wells in Treatment Zone C is provided below:

Treatment Zone C Performance Monitoring Well	Molar Mass % Reduction Relative to Baseline				Amendment Indicator				Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	DHC > 1E+03 cells/mL	DHC > 1E+05 cells/mL	VCR > 1E+03 cells/mL	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW-15	98.4%	100%	99.8%	95%	YES	YES	NO	YES	YES	-	YES
MW-25(16.4)	99.6%	--	99.9%	99.4%	NO	YES	NO	YES	NO	-	YES
MW-25(32.6)	100%	100%	100%	100%	YES	NO	NO	NO	NO	-	YES
MW-25(45.2)	100%	100%	100%	100%	YES	YES	NO	YES	YES	-	YES
OW-4(35)	99%	100%	99.1%	99%	YES	YES	NO	NO	NO	-	YES
OW-4(54)	100%	--	100%	--	YES	NO	NO	NO	NO	-	YES
Total (6 wells)	99.4%										

Conclusions

- The total molar mass for the primary CVOCs has thus far been reduced by 99% in Treatment Zone C based upon data from the six performance monitoring wells relative to baseline.
- TCE has been reduced to below reporting limits in all wells.
- Total CVOC mass has decreased from baseline in all the performance monitoring wells.
- Contaminant mass has been fully reduced at MW-25(32.6), MW-25(45.2), and OW-4(54).
- Significant reductions in concentrations of degradation products were observed at MW-15 and OW-4(35) relative to the previous sampling event.

7.6 Treatment Zone D

Ten monitoring wells located in Treatment Zone D were sampled for performance monitoring: MW-16, MW-17, MW-26(17.5), MW-26(28.8), MW-26(58.8), ZVI-2(17.5), ZVI-2(32.5), OW-5(16), OW-5(35), and OW-5(45). The contaminant mass at MW-26(17.5), MW-26(28.8), MW-26(58.8), ZVI-2(17.5), ZVI-2(32.5), OW-5(35), and OW-5(45) has been reduced 100%, therefore these wells are not included in the subsequent discussions on indicator parameters. The indicator parameter discussion is focused on three wells: MW-16, MW-17, and OW-5(16).

Of the three wells, the TOC level was greater than 20 mg/L only at MW-16. VFAs were substantially present at MW-16.

The pH in the three wells ranged from 5.56 to 6.99, which is adequate for biological-based treatment. ORP indicates reducing conditions at MW-16 and OW-5(16). Dissolved oxygen readings were above 0.5 mg/L in the three wells. Iron and manganese concentrations were slightly lower than baseline at OW-5(16), and comparable or higher than baseline conditions in the other wells. Nitrate and sulfate concentrations were within their target range; although the sulfate concentration at MW-17 was 17 mg/L, which is higher than in nearby wells.

TCE was below reporting limits in all the wells except MW-17. The TCE concentration at MW-17 did not change significantly from the January 2017 sample result. Cis-1,2-DCE concentrations and vinyl chloride concentrations were lower in MW-16 and OW-5(16) compared to the previous sampling event (January 2017). The cis-1,2-DCE concentration at MW-17 was slightly higher than the previous sample. No vinyl chloride was detected at MW-17.

The DHC populations at MW-17 were low (24.6 cells/mL), but were adequate for dechlorination in the other two wells [MW-16, OW-5(16)]. Reductase genes were low at MW-17, but concentrations at the other two wells indicate potential for biological activity. Methane concentrations were high at MW-16 and OW-5(16), indicating that anaerobic fermentation is occurring. Ethene was substantially present at MW-16. High ethene concentrations are indicative that complete anaerobic dechlorination is occurring.

A summary of the pertinent results for the performance monitoring wells in Treatment Zone D is provided below:

Treatment Zone D Performance Monitoring Well	Molar Mass % Reduction Relative to Baseline				Amendment Indicator				Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	DHC > 1E+03 cells/mL	DHC > 1E+05 cells/mL	VCR > 1E+03 cells/mL	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW-16	90%	100%	99%	78%	YES	YES	NO	YES	YES	-	NO
MW-17	57%	59%	49%	--	NO	NO	NO	NO	NO	+	NO
MW-26(17.5)	100%	--	100%	100%	NO	NO	NO	NO	NO	-	YES
MW-26(28.8)	100%	100%	100%	100%	YES	NO	NO	NO	NO	-	YES
MW-26(58.8)	100%	--	100%	--	YES	YES	NO	YES	YES	-	YES
ZVI-2(17.5)	100%	--	100%	100%	NO	YES	NO	NO	NO	-	NO
ZVI-2(32.5)	100%	--	100%	100%	YES	YES	NO	YES	NO	-	NO
OW-5(16)	99.8%	100%	100%	99.3%	NO	YES	NO	YES	NO	-	NO
OW-5(35)	100%	100%	100%	100%	YES	YES	NO	YES	NO	-	NO
OW-5(45)	100%	100%	100%	100%	YES	YES	NO	YES	NO	-	NO
Total (10 wells)	98%										

Conclusions

- The total molar mass for the primary CVOCs has thus far been reduced by 98% in Treatment Zone D based upon data from the 10 performance monitoring wells relative to baseline.
- The mass at the leading edge of the treatment area (MW-17, MW-26, and ZVI-2) has been reduced by 99% from baseline.
- Total CVOC mass has decreased from baseline in all the performance monitoring wells.
- Contaminant mass has been fully reduced at MW-26(17.5), MW-26(28.8), MW-26(58.8), ZVI-2(17.5), ZVI-2(32.5), OW-5(35), and OW-5(45).

- Reductions in concentrations of degradation products were observed at MW-16 and OW-5(16) relative to the previous sampling event.
- TCE was detected only at MW-17. The TCE concentration at MW-17 has decreased 57% relative to baseline, but did not change significantly relative to the previous sampling event.

7.7 Quality Control Results

The VOC data was validated in general accordance with the Quality Assurance Project Plan (QAPP). The validation included an evaluation of the data quality and a review of the field quality assurance sample results. The data validation report is included in Appendix B.

The laboratory data conformed to the guidelines in the QAPP with a few exceptions. The initial or continuing calibrations for acetone, 2-butanone, and bromomethane were outside of control limits in certain batches, and in consequence, some of the data were J qualified as estimated. The laboratory control samples for certain batches were high for 4-methyl-2-pentanone and low for bromomethane and vinyl chloride, and therefore the associated data were J qualified as estimated. A subset of the results for bromomethane and chloromethane were qualified as estimated due to matrix spike and/or matrix spike duplicate percent recoveries outside of the QAPP specified limits. The relative percent difference between the sample and field replicate at MW-59(29) exceeded the control limit for chloroethane, and therefore, the results were qualified as estimated. No data was rejected during validation. Though the data validation identified some data that needed to be qualified, the data is considered acceptable.

One equipment blank and three field replicates were submitted and analyzed for VOCs, TOC, nitrate, chloride, sulfate, alkalinity, iron, and manganese. Six additional equipment blanks, a field blank, and three trip blanks were also submitted and analyzed for VOCs. No VOCs were detected in the equipment blanks, trip blanks, or field blank. Total organic carbon was detected at 1.6 mg/L in an equipment blank. Nitrate was detected at 0.031 mg/L in an equipment blank.

8.0 CONCLUSIONS

Based on the ISCR and ERD injections and subsequent performance monitoring results, Amec Foster Wheeler offers the following observations:

- The CVOC concentrations in groundwater at the Site have decreased significantly since the ISCR and ERD injections were initiated in 2015, as overall total site-wide treatment area mass has been reduced by 64% from baseline concentrations.
- Data provides evidence of rebound in the source area. An increase in concentrations of dechlorination by-products (1,2-cis DCE and vinyl chloride) were observed in several monitoring wells located in the source area beneath the building and immediately east of the building.

The CVOC plume appears to remain stable. Pertinent observed elements demonstrating plume stability include the following:

- The overall total site-wide treatment area mass has been reduced by 64% from baseline concentrations.
- The source area mass (combined behind building and inside building) has been reduced 61% from baseline.
- The mass at the leading edge of the treatment area (MW-17, MW-26, and ZVI-2) has been reduced by 99% from baseline.
- The parent compound, TCE, was below reporting limits in all but one well, MW-17. The TCE concentration at MW-17 was 78 micrograms per liter ($\mu\text{g/L}$), which is significantly less than the baseline concentration of 190 $\mu\text{g/L}$.



9.0 UPCOMING ACTIVITIES

The performance monitoring results show significant and substantial reduction in CVOCs at and in the vicinity of the site. The seventh Performance Groundwater Monitoring Event was completed in October 2017. Polishing injections at select area are being completed in the fourth calendar quarter of 2017.



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TORX Facility Remediation
Report of Performance Monitoring

TABLES

Table 1
Biostimulation Post Injection Performance Monitoring Parameters and Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Frequency	Third Month and Sixth Month after Injections						Frequency	Ninth and Twelfth Month after Injections					
Treatment Areas	Source Zone Behind Plant	Source Zone Inside Plant	Zone A	Zone B	Zone C	Zone D	Treatment Areas	Source Zone Behind Plant	Source Zone Inside Plant	Zone A	Zone B	Zone C	Zone D
Objectives	Evaluate changes in aquifer chemistry and VOC concentrations in groundwater						Objectives	Evaluate Changes in VOC concentrations, Organic substrate, and ERD end products in groundwater					
Fixed Laboratory Analyses							Fixed Laboratory Analyses						
	4 Wells	7 Wells	9 Wells	7 Wells	6 Wells	10 Wells		4 Wells	7 Wells	9 Wells	7 Wells	6 Wells	10 Wells
VOCs ⁽¹⁾ ; TOC ⁽²⁾ ; Dissolved Gases ⁽³⁾	MW-81(27); MW-59(29); PM-2; PM-3	MW-67; MW-68; MW-71; MW-72; MW-76; MW-77; MW-78	MW-6C; MW-12; MW-13; MW-62; MW-20(35); MW-20(51); MW-82; OW-1(28); OW-1(39)	MW-14; MW-24(24.9); MW-24(55.4); OW-2(33); OW-2(53); MW-82; OW-3(35); OW-3(55)	MW-15; MW-25(16.4); MW-25(32.6); MW-25(45.2); OW-4(35); OW-4(54)	MW-16; MW-17; MW-26(17.5); MW-26(28.8); MW-26(58.2); ZVI-2(17.5); ZVI-2(32.5); OW-5(16); OW-5(35); OW-5(44)	VOCs; TOC; Dissolved Gases	MW-81(27); MW-59(29); PM-2; PM-3	MW-67; MW-68; MW-71; MW-72; MW-76; MW-77; MW-78	MW-6C; MW-12; MW-13; MW-62; MW-20(35); MW-20(51); MW-82; OW-1(28); OW-1(39)	MW-14; MW-24(24.9); MW-24(55.4); OW-2(s); OW-2(d); OW-3(s); OW-3(d)	MW-15; MW-25(16.4); MW-25(32.6); MW-25(45.2); OW-4(35); OW-4(54)	MW-16; MW-17; MW-26(17.5); MW-26(28.8); MW-26(58.2); ZVI-2(17.5); ZVI-2(32.5); OW-5(16); OW-5(35); OW-5(44)
Metals ⁽⁴⁾ ; Alkalinity ⁽⁵⁾													
Anions ⁽⁶⁾													
DHC ⁽⁷⁾													
VFAs ⁽⁸⁾													
Field Readings							Field Readings						
Water Level ⁽⁹⁾	x	x	x	x	x	x	Water Level	x	x	x	x	x	x
ORP ⁽¹⁰⁾	x	x	x	x	x	x	ORP	x	x	x	x	x	x
pH	x	x	x	x	x	x	pH	x	x	x	x	x	x
Cond.	x	x	x	x	x	x	Cond.	x	x	x	x	x	x
Temperature	x	x	x	x	x	x	Temperature	x	x	x	x	x	x
DO ⁽¹¹⁾	x	x	x	x	x	x	DO	x	x	x	x	x	x
Turbidity	x	x	x	x	x	x	Turbidity	x	x	x	x	x	x

(1) - VOCs: volatile organic compounds (Method 8260)

(2) - TOC: total organic carbon (Method 9060)

(3) - Dissolved gases include methane, ethane, and ethene (Method AM20GAX)

(4) - Iron and Manganese (Method 6020A)

(5) - Alkalinity (Method A2320B)

(6) - Anions include sulfate, nitrate, and chloride (Method SW9056)

(7) - DHCs: dehalococoides [Quantitative Polymerase Chain Reaction (qPCR)]

(8) - VFAs: volatile fatty acids (Method AM23G)

(9) - Depth to water measurements using a water level indicator

(10) - ORP: Oxidation Reduction Potential

(11) - DO: Dissolved Oxygen

Table 2
Summary of Measured Field Parameters, Geochemistry, and Metals
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry						Metals	
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Source - Behind	ATR-MW81(27)-G110512	11/5/2012	6.82	0.486	15.32	5.3	0.09	-65.6	160	160	9.7	51	0.02 U	2.9	5.1	0.33
	ATR-MW81(27)	12/27/2012	6.57	0.495	14.35	0.0	0.34	152.4	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW81(27)-G010713	1/7/2013	6.65	0.488	14.51	8.3	0.22	-55.8	230	230	190	55	0.02 U	5.7	5.2	0.53
	ATR-MW81(27)-G020513	2/5/2013	7.08	0.448	14.13	8.7	0.34	-153.2	360	360	26	56	0.02 U	5.7	3.2	0.32
	ATR-MW81(27)-G030613	3/6/2013	6.72	0.416	13.26	1.2	0.14	-75.1	170	170	12	60	0.02 U	5.1	3.2	0.36
	ATR-MW81(27)-G050313	5/3/2013	6.78	0.419	13.64	4.8	NM	-81.1	180	180	11	61	0.02 U	3.6	3.4	0.2
	ATR-MW81(27)-G082715	8/27/2015	5.68	0.804	15.26	4.9	0.24	-25.1	210	210	370	65	0.027	1.1	14	0.78
	ATR-MW81(27)-G022316	2/23/2016	5.99	1.302	13.35	5.1	1.76	-37.3	190	190	280	110	0.2	1 U	63	1.1
	ATR-MW81(27)-G061616	6/16/2016	5.59	0.961	14.86	9.0	0.57	-55.1	NA	NA	220	NA	NA	NA	NA	NA
	ATR-MW81(27)-G092916	9/29/2016	5.86	0.776	18.03	8.4	1.73	-64.8	NA	NA	140	NA	NA	NA	NA	NA
	ATR-MW81(27)-G121316	12/13/2016	6.28	0.716	12.14	1.1	0.14	-73.2	110 X	110 X	120	82	0.065	2.0 U	47	0.41
	ATR-MW81(27)-G060717	6/7/2017	5.96	1.162	14.88	0.0	0.41	-72.8	200	200	170	170	0.02 U	1.0 U	93	0.86
	ATR-MW59(29)-G092712	9/27/2012	6.86	0.417	14.92	0.9	0.35	-81.6	140	140	10	64	0.02 U	3.8	2.8	0.21
	ATR-MW59(29)-G122812	12/28/2012	5.56	1.178	14.15	5.0	0.25	-59.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G010713	1/7/2013	5.28	1.864	14.31	6.1	0.41	55.7	570	570	1,300	78	0.057	2.7	27	1.4
	ATR-MW59(29)-G020413	2/4/2013	6.81	1.012	13.84	4.5	0.55	-132.3	360	360	430	120	0.02 U	1 U	13	0.66
	ATR-MW59(29)-G030613	3/6/2013	6.12	0.802	13.64	14.4	0.13	-75.8	270	270	200	110	0.02 U	1 U	8.5	0.52
	ATR-MW59(29)-G050313	5/3/2013	6.61	0.476	14.09	9.0	0.17	-105.4	180	180	17	77	0.02 U	2.3	1.6	0.54
	ATR-MW59(29)-G082715	8/27/2015	6.61	0.477	14.77	3.1	0.32	-73.6	230	230	89	48	0.022	1.0 U	3.6	0.32
	ATR-MW59(29)-G022316	2/23/2016	6.37	1.744	13.42	13.7	2.06	-44.7	360	360	6.2	160	0.13	1.0 U	23	1.1
	ATR-MW59(29)-G061716	6/17/2016	5.83	1.247	17.39	29.6	0.59	-69.0	NA	NA	150	NA	NA	NA	NA	NA
	ATR-MW59(29)-G061716R	6/17/2016	NA	NA	NA	NA	NM	NA	NA	NA	140	NA	NA	NA	NA	NA
	ATR-MW59(29)-G093016	9/30/2016	6.42	1.350	16.64	1.4	2.23	-70.1	NA	NA	140	NA	NA	NA	NA	NA
	ATR-MW59(29)-G093016R	9/30/2016	NA	NA	NA	NA	NM	NA	NA	NA	120	NA	NA	NA	NA	NA
	ATR-MW59(29)-G121316	12/13/2016	6.44	0.838	10.05	1.8	0.83	-59.2	400 X	400 X	150	130	0.030	2 U	13	0.97
	ATR-MW59(29)-G121316R	12/13/2016	NA	NA	NA	NA	NA	NA	390 X	390 X	150	130	0.041	14	13	0.96
	ATR-MW59(29)-G060717	6/7/2017	6.07	1.350	15.16	0.0	0.37	-52.4	530	530	67	110	0.020 U	1.3	15	1.1
	ATR-MW59(29)-G060717R	6/7/2017	NA	NA	NA	NA	NA	NA	520	520	67	99	0.020 U	1.0 U	16	1.1
	ATR-PM2-G110512	11/5/2012	6.98	0.617	15.69	5.4	0.61	-49.8	230	230	9.7	50	0.02 U	1.7	5.4	0.58
	ATR-PM2	12/27/2012	6.56	0.519	13.20	50.8	0.40	34.5	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM2-G010713	1/7/2013	6.64	0.571	13.70	4.3	0.41	0.8	400	400	9.8	31	0.02 U	1.4	5.1	0.64
	ATR-PM2-G020413	2/4/2013	6.86	0.518	14.02	7.0	0.27	-133.9	250	260	9.9	33	0.02 U	1.3	5.0	0.71
	ATR-PM2-G030613	3/6/2013	6.78	0.530	13.15	4.8	0.12	-118.9	300	300	10	28	0.02 U	2.7	6.0	0.94
ATR-PM2-G050313	5/3/2013	6.80	0.512	12.87	8.6	0.11	-125.5	300	300	16	26	0.02 U	7.3	5.5	0.84	
ATR-PM2-G082715	8/27/2015	6.48	0.706	15.01	2.9	0.51	-86.6	330	330	41	26	0.11	1.0 U	5.1	0.95	
ATR-PM2-G022316	2/23/2016	6.66	0.848	10.02	59.1	0.39	-56.4	390	390	73	56	0.082	1 U	11	1.5	
ATR-PM2-G061616	6/16/2016	6.01	0.843	16.11	30.9	0.56	-54.2	NA	NA	44	NA	NA	NA	NA	NA	
ATR-PM2-G092916	9/29/2016	6.53	0.677	18.74	20.9	0.35	-104.2	NA	NA	12	NA	NA	NA	NA	NA	
ATR-PM2-G121316	12/13/2016	6.80	0.658	6.75	79.1	1.89	-56.5	410 X	410 X	14	28	0.036	1.1	9.6	1.4	
ATR-PM2-G060717	6/7/2017	6.27	0.947	14.47	6.4	0.33	-89.3	450	450	19	33	0.02 U	2.7	12	1.4	

Table 2 (continued)
Summary of Measured Field Parameters, Geochemistry, and Metals
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry						Metals	
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Source - Behind	ATR-PM3-G110512	11/5/2012	6.51	0.645	13.98	8.6	0.06	-31.8	260	260	14	47	0.056	3.9	3.2	0.63
	ATR-PM3	12/28/2012	6.55	0.461	12.12	1.8	0.29	-37.6	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM3-G010713	1/7/2013	6.47	0.573	12.07	4.6	0.41	35.7	240	240	15	50	0.02 U	4.7	1.9	0.61
	ATR-PM3-G020413	2/4/2013	6.59	0.494	13.70	9.8	0.22	-92.9	230	230	14	48	0.02 U	3.9	1.6	0.56
	ATR-PM3-G030513	3/5/2013	6.45	0.468	12.99	5.4	0.11	-83.7	NA	NA	14	NA	NA	NA	NA	NA
	ATR-PM3-G050213	5/2/2013	6.61	0.499	14.60	6.0	0.21	-62.1	240	240	15	49	0.02 U	3.5	3.7	0.53
	ATR-PM3-G082715	8/27/2015	5.82	2.011	17.48	517.6	0.81	-79.0	310	310	38,000	53	2.7	13	6.8	0.67
	ATR-PM3-G022316	2/23/2016	5.53	1.149	12.29	1,828.5	0.21	42.6	180	180	2,400	64	1.3	1.0 U	32	1.5
	ATR-PM3-G061716	6/17/2016	4.56	0.878	15.22	571.1	0.56	-49.6	NA	NA	760	NA	NA	NA	NA	NA
	ATR-PM3-G092916	9/29/2016	5.68	0.948	16.45	391.6	0.25	40.0	NA	NA	800	NA	NA	NA	NA	NA
	ATR-PM3-G121316	12/13/2016	4.78	2.067	7.18	1,140	0.67	5.9	210 X	210 X	12,000	39	6.3	23 U	66	2.6
ATR-PM3-G060717	6/7/2017	4.66	1.717	14.71	109.7	0.26	66.2	340	340	810	110	0.02 U	1.0 U	53	2.1	
Source - Inside	ATR-MW67(30)-G092612	9/26/2012	7.04	0.784	16.95	1,341.0	3.04	164.7	370	380	8.2	16	2.2	20	170	2.7
	ATR-MW67(30)-G050613	5/6/2013	7.03	0.633	NM	1,241.6	4.01	78.5	NA	NA	7.8	NA	NA	NA	NA	NA
	ATR-MW67-G031516	3/15/2016	7.00	1.002	17.02	1040.4	-58.09*	14.6	370	370	8.2	67	2.6	24	4.6	0.97
	ATR-MW67-G062016	6/20/2016	6.36	1.439	17.77	2192	3.69	-81.3	NA	NA	50	NA	NA	NA	NA	NA
	ATR-MW67-G092916	9/29/2016	6.64	0.925	17.12	983.5	4.65	-89.6	NA	NA	68	NA	NA	NA	NA	NA
	ATR-MW67-G121216	12/12/2016	6.81	0.899	16.30	1211	6.02	-58.7	420 X	420 X	100	58	0.036	3.3	64	2.2
	ATR-MW67-G060817	6/8/2017	6.50	1.504	17.88	801.0	2.85	-50.5	550	550	210	110	0.02 U	2.9	100	2.3
	ATR-MW68-G031516	3/15/2016	6.12	1.308	16.98	47.0	-82.06*	-39.0	490	490	1,100	34	0.27	12	9.1	1.1
	ATR-MW68-G061716	6/17/2016	5.08	0.903	17.68	565.4	4.10	-36.4	NA	NA	350	NA	NA	NA	NA	NA
	ATR-MW68-G092916	9/29/2016	6.73	1.160	16.97	390.2	3.56	-55.6	NA	NA	160	NA	NA	NA	NA	NA
	ATR-MW68-G121316	12/13/2016	6.44	1.071	16.05	847.1	4.14	-33.5	510 X	510 X	160	44	0.065	5.6	34	1.6
	ATR-MW68-G060817	6/8/2017	6.58	1.748	17.75	177.3	3.81	-52.7	720	720	350	110	0.02 U	5.0 U	52	1.9
	ATR-MW71-G031516	3/15/2016	6.34	1.091	16.74	187.7	-85.10*	-59.5	350	350	95	93	0.055	5.4	16	1.4
	ATR-MW71-G062016	6/20/2016	5.87	3.470	19.39	294.8	3.95	-30.0	NA	NA	590	NA	NA	NA	NA	NA
	ATR-MW71-G092916	9/29/2016	6.12	1.964	16.37	279.1	5.60	-13.7	NA	NA	660	NA	NA	NA	NA	NA
	ATR-MW71-G121216	12/12/2016	5.68	2.054	15.89	347.7	5.38	-19.3	850 X	850 X	1,300	100	0.02 U	15	110	5.9
	ATR-MW71-G060817	6/8/2017	6.15	2.360	17.36	195.8	3.23	-45.5	1,000	1,000	580	170	0.02 U	2.0 U	79	3.4
	ATR-MW72(32)-G030613	3/6/2013	6.98	0.600	16.20	753.8	2.83	-56.1	280	280	NA	58	0.036	6.5	NA	NA
	ATR-MW72(32)-G050613	5/6/2013	6.99	0.570	16.95	721.0	3.04	-93.9	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW72-G031516	3/15/2016	5.96	1.629	16.86	93.6	-86.04*	-29.0	490	490	410	120	0.079	1.6	23	2.0
	ATR-MW72-G062016	6/20/2016	5.61	2.838	17.54	273.0	3.06	-62.3	NA	NA	630	NA	NA	NA	NA	NA
	ATR-MW72-G092916	9/29/2016	6.70	1.535	17.32	133.0	6.25	-78.8	NA	NA	380	NA	NA	NA	NA	NA
	ATR-MW72-G121316	12/13/2016	6.30	1.296	16.16	1321.2	4.82	-52.2	640 X	640 X	320	93	0.055	3.5	63	3.1
	ATR-MW72-G060817	6/8/2017	6.22	2.496	17.66	614.4	4.40	-55.7	1,100	1,100	560	91	0.02 U	1.0 U	71	3.1
	ATR-MW76-G031516	3/15/2016	6.31	0.960	17.20	525.6	NM	-92.0	380	380	110	52	0.19	6.1	8.0	0.44
	ATR-MW76(30)-G062016	6/20/2016	5.80	1.912	17.48	11.7	0.54	-55.2	NA	NA	140	NA	NA	NA	NA	NA
	ATR-MW76-G092916	9/29/2016	6.15	0.972	19.00	135.1	2.95	-57.9	NA	NA	170	NA	NA	NA	NA	NA
ATR-MW76-G121416	12/14/2016	5.81	1.148	16.93	126.6	0.65	-362.2	370 X	370 X	670	81	0.30	2 U	24	0.73	
ATR-MW76-G060817	6/8/2017	5.29	2.412	17.43	<1.0	0.49	-17.5	630	630	500	110	0.02 U	1.0 U	41	1.3	

Table 2 (continued)
Summary of Measured Field Parameters, Geochemistry, and Metals
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry					Metals		
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Source - Inside	ATR-MW77-G031516	3/15/2016	7.42	0.339	15.66	74.3	NM	-83.8	150	150	2.5	9.9	0.02 U	2.1	0.48	0.16
	ATR-MW77-G062016	6/20/2016	7.01	0.598	16.06	3.3	0.57	-79.0	NA	NA	6.0	NA	NA	NA	NA	NA
	ATR-MW77-G092916	9/29/2016	7.47	0.295	19.61	4.8	4.29	-76.6	NA	NA	3.5	NA	NA	NA	NA	NA
	ATR-MW77-G121416	12/14/2016	7.21	0.380	15.05	1.2	2.23	-84.2	160 X	160 X	37	12	0.02 U	1.9	1.6	0.27
	ATR-MW77-G060817	6/8/2017	6.63	0.456	17.33	<1.0	0.60	-102.7	170	170	47	12	0.02 U	2.0 U	2.1	0.27
	ATR-MW78-G031516	3/15/2016	6.60	0.840	16.83	165.5	345.58*	-73.5	350	350	150	10	0.074	1.2	1.3	1.0
	ATR-MW78-G062016	6/20/2016	5.89	1.633	23.21	318.0	0.66	-23.0	NA	NA	340	NA	NA	NA	NA	NA
	ATR-MW78-G092916	9/29/2016	6.31	1.067	18.80	9.2	2.70	-36.5	NA	NA	240	NA	NA	NA	NA	NA
	ATR-MW78-G121416	12/14/2016	6.38	0.837	15.35	5.2	0.60	-23.2	520 X	520 X	180	43	0.044	5 U	6.9	1.7
ATR-MW78-G060817	6/8/2017	5.68	1.500	15.73	<1.0	0.53	-20.3	500	500	150	11	0.02 U	1.0 U	6.4	0.86	
Zone A	ATR-MW6C-G092612	9/26/2012	7.16	0.439	15.26	0.0	0.31	-26.0	250	250	4.2	15	0.02 U	9.1	0.51	0.21
	ATR-MW6C-G030513	3/5/2013	7.11	0.446	15.03	0.0	0.22	-26.2	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G050713	5/7/2013	7.24	0.425	15.54	0.0	0.22	-62.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G050713R	5/7/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G082615	8/26/2015	7.25	14.17	16.30	4.8	0.27	-20.2	230	230	8.2	21	0.22	7.6	0.32	0.22
	ATR-MW6C-G022316	2/23/2016	7.51	0.651	14.34	15.0	0.47	-54.0	260	260	3.2	24	0.02 U	8	1.3	0.24
	ATR-MW6C-G061616	6/16/2016	6.74	0.497	18.14	10.2	0.57	-107.2	NA	NA	7.3	NA	NA	NA	NA	NA
	ATR-MW6C-G092816	9/28/2016	7.59	0.644	15.95	4.0	0.18	-125.5	NA	NA	3.3	NA	NA	NA	NA	NA
	ATR-MW6C-G020117	2/1/2017	6.99	0.775	12.09	1.4	1.20	-96.7	400 X	400 X	10	32	0.02 U	5.0	2.5	0.38
	ATR-MW6C-G060717	6/7/2017	6.15	1.327	17.41	<1.0	0.47	-25.0	380	380	10	63	0.02 U	5.8	2.1	0.57
	ATR-MW12-G050613	5/6/2013	7.37	0.458	14.60	433.9	2.91	-77.1	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW12-G082615	8/26/2015	6.91	17.28	15.45	188.6	1.86	-44.2	250	250	69	23	0.022	1.7	5.4	0.44
	ATR-MW12-G022416	2/24/2016	6.97	0.708	13.07	22.0	3.00	182.1	260	260	59	35	0.051	1.0 U	7.8	0.69
	ATR-MW12-G061616	6/16/2016	6.63	0.623	15.98	9.8	2.00	-101.2	NA	NA	64	NA	NA	NA	NA	NA
	ATR-MW12-G092816	9/28/2016	6.73	0.644	14.94	20.4	4.54	-107.4	NA	NA	37	NA	NA	NA	NA	NA
	ATR-MW12-G020117	2/1/2017	7.19	0.896	13.68	75.6	7.60	-31.5	400 X	400 X	100	28	0.02 U	2.1	22	1.2
	ATR-MW12-G060717	6/7/2017	NA	NA	NA	NA	NA	NA	400	400	59	22	0.02 U	3.5	24	0.86
	ATR-MW13-G092712	9/27/2012	7.26	0.382	14.80	337.4	1.70	-13.4	200	200	5.5	24	0.78	8.4	75	1.3
	ATR-MW13	2/5/2013	7.49	0.396	12.36	NM	2.07	-16.1	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW13-G050613	5/6/2013	7.25	0.397	13.91	344.1	3.24	-13.2	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW13-G082615	8/26/2015	7.06	21.18	14.20	570.1	4.92	-53.7	310	310	120	36	0.02 U	18	15	0.73
	ATR-MW13-G030216	3/2/2016	7.38	0.749	10.73	91.3	3.86	153.1	290	290	68	20	0.12	5.9	13	0.57
	ATR-MW13-G061616	6/16/2016	6.77	0.639	17.11	35.8	1.51	-114.1	NA	NA	11	NA	NA	NA	NA	NA
	ATR-MW13-G092816	9/28/2016	6.90	0.608	14.08	120.7	4.26	-103.6	NA	NA	11	NA	NA	NA	NA	NA
	ATR-MW13-G020117	2/1/2017	7.22	0.786	13.60	208.9	6.46	-29.2	340 X	340 X	7.6	40	0.02 U	35	30	0.60
	ATR-MW13-G060717	6/7/2017	6.95	0.946	14.56	198.8	6.04	-76.9	450	450	6.7	21	0.02 U	56	27	0.86
	ATR-MW62(36)-G050213	5/2/2013	7.23	0.449	15.64	4.7	0.20	-81.4	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW62-G082715	8/27/2015	6.62	0.700	16.21	4.8	0.30	-87.4	300	300	39	40	0.1	1.1	3.9	2.9
	ATR-MW62-G022316	2/23/2016	7.14	0.872	14.14	29.13	0.39	-86.5	260	260	100	35	0.12	1 U	17	2.5
	ATR-MW62-G061616	6/16/2016	6.44	0.624	19.61	52.6	0.56	-120.6	NA	NA	47	NA	NA	NA	NA	NA
ATR-MW62-G092916	9/29/2016	7.40	0.535	15.72	1.3	0.17	-157.5	NA	NA	35	NA	NA	NA	NA	NA	
ATR-MW62-G020117	2/1/2017	6.87	1.140	13.03	6.8	0.15	-123.6	440 X	440 X	190	50	0.02 U	1 U	49	4.5	
ATR-MW62(36)-G060717	6/7/2017	5.62	1.340	16.29	<1.0	0.39	-53.4	420	420	42	24	0.02 U	1.0 U	27	2.1	

Table 2 (continued)
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TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry						Metals	
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone A	ATR-MW20(35)-G050713	5/7/2013	7.27	0.451	15.85	0.0	0.15	-107.2	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(35)-G082715	8/27/2015	7.00	0.639	16.43	2.1	0.33	-95.4	320	320	84	18	0.02 U	3.1	2.6	0.37
	ATR-MW20(35)-G082715R	8/27/2015	NA	NA	NA	NA	NA	NA	320	320	88	18	0.02 U	3.3	2.6	0.37
	ATR-MW20(35)-G022316	2/23/2016	7.18	0.853	14.82	5.3	0.18	-76.8	320	320	110	21	0.081	1 U	9.6	0.86
	ATR-MW20(35)-G022316R	2/23/2016	NA	NA	NA	NA	NA	NA	320	320	110	22	0.079	1 U	10	0.85
	ATR-MW20(35)-G061616	6/16/2016	6.93	0.717	19.64	48.5	0.64	-135.6	NA	NA	67	NA	NA	NA	NA	NA
	ATR-MW20(35)-G092816	9/28/2016	7.07	0.486	17.47	13.2	3.10	-103.4	NA	NA	15	NA	NA	NA	NA	NA
	ATR-MW20(35)-G092816R	9/28/2016	NA	NA	NA	NA	NA	NA	NA	NA	16	NA	NA	NA	NA	NA
	ATR-MW20(35)-G020117	2/1/2017	6.91	0.821	12.49	9.6	0.38	-141.1	410 X	410 X	53	25	0.02 U	1 U	15	0.45
	ATR-MW20(35)-G020117R	2/1/2017	NA	NA	NA	NA	NA	NA	410 X	410 X	54	25	0.02 U	1 U	15	0.48
	ATR-MW20(35)-G060717	6/7/2017	6.25	1.157	17.39	<1.0	0.45	-78.4	370	370	6.7	24	0.02 U	2.2	11	0.31
	ATR-MW20(35)-G060717R	6/7/2017	NA	NA	NA	NA	NA	NA	380	380	7.0	24	0.02 U	1.6	11	0.32
	ATR-MW20(51)-G050713	5/7/2013	7.51	0.340	15.22	0.0	0.26	-133.8	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(51)-G082715	8/27/2015	6.01	1.861	17.32	3.2	0.27	-62.0	740	740	740	6.5	0.08	1.0 U	46	3.5
	ATR-MW20(51)-G022316	2/23/2016	6.85	1.151	12.89	33.9	0.70	-79.0	360	360	220	14	0.18	1 U	98	1.6
	ATR-MW20(51)-G061616	6/16/2016	6.44	1.014	21.10	10.5	0.52	-125.3	NA	NA	83	NA	NA	NA	NA	NA
	ATR-MW20(51)-G092816	9/28/2016	6.80	0.837	17.66	8.2	0.42	-136.4	NA	NA	21	NA	NA	NA	NA	NA
	ATR-MW20(51)-G020117	2/1/2017	6.74	0.903	11.09	39.8	0.62	-135.1	500 X	500 X	18	9.8	0.02 U	1 U	31	0.61
	ATR-MW20(51)-G060717	6/7/2017	6.17	0.850	15.30	<1.0	0.62	-70.5	270	270	7.1	7.5	0.02 U	1.3	14	0.23
	ATR-MW82(58)-G030513	3/5/2013	7.34	0.515	13.84	0.0	0.09	-83.3	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW82(58)-G050713	5/7/2013	7.40	0.411	14.93	0.0	0.21	-79.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW82-G082615	8/26/2015	6.19	62.61	15.24	4.2	0.15	-10.2	990	990	1600	5.4	0.021	3.0	5.8	7.4
	ATR-MW82-G022316	2/23/2016	7.46	1.381	12.70	28.3	0.28	-113.5	370	370	310	7.7	0.1	1 U	23	1.7
	ATR-MW82-G061616	6/16/2016	6.38	0.991	15.98	19.5	0.57	-124.5	NA	NA	280	NA	NA	NA	NA	NA
	ATR-MW82-G092816	9/28/2016	7.36	0.791	16.26	9.2	0.23	-154.6	NA	NA	35	NA	NA	NA	NA	NA
	ATR-MW82-G020117	2/1/2017	6.89	1.123	11.42	3.8	0.63	-139.9	610 X	610 X	220	14	0.02 U	1 U	46	0.57
	ATR-MW82-G060717	6/7/2017	6.68	0.672	16.76	0.0	1.47	-121.6	310	310	4.9	18	0.02 U	1.0 U	26	0.31
	ATR-OW1(28)-G121714	12/17/2014	7.27	0.718	12.04	90.6	0.42	-63.4	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW1(S)-G082715	8/27/2015	7.48	1.440	13.60	5.4	0.04	-154	220	220	4.9	65	0.02 U	7.4	3.7	0.86
	ATR-OW1(28)-G022316	2/23/2016	7.03	0.654	11.68	34.9	1.03	-133.2	270	270	3.3	38	0.036	7.9	5.3	0.98
	ATR-OW1(28)-G061616	6/16/2016	7.05	0.789	15.18	11.0	0.58	-159.3	NA	NA	20	NA	NA	NA	NA	NA
	ATR-OW1(28)-G092816	9/28/2016	7.88	0.828	14.11	3.7	0.19	-160.1	NA	NA	12	NA	NA	NA	NA	NA
	ATR-OW1(28)-G013117	1/31/2017	7.37	0.848	12.90	0.1	0.83	-152.4	340 X	340 X	6.0	55	0.02 U	1.7	14	1.1
ATR-OW1(28)-G060717	6/7/2017	6.92	0.834	14.65	0.5	0.93	-121.4	350	350	6.4	56	0.02 U	8.2	14	2.2	
ATR-OW1(39)-G121714	12/17/2014	7.67	0.498	13.68	8.3	0.42	-139.0	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW1(D)-G082715	8/27/2015	6.67	1.338	15.21	3.8	0.22	-84.0	600	600	410	12	0.02 U	1.0 U	13	0.86	
ATR-OW1(39)-G022916	2/29/2016	6.68	0.843	13.24	57.4	0.36	-117.8	370	370	25	25	0.096	1.0 U	16	0.51	
ATR-OW1(39)-G061616	6/16/2016	6.88	0.639	15.97	9.3	0.55	-141.1	NA	NA	7.7	NA	NA	NA	NA	NA	
ATR-OW1(39)-G092816	9/28/2016	7.80	0.565	14.06	2.0	0.20	-142.9	NA	NA	5.9	NA	NA	NA	NA	NA	
ATR-OW1(39)-G020117	2/1/2017	6.97	0.872	12.49	2.7	0.10	-108.0	400 X	400 X	6.8	45	0.02 U	1 U	12	0.47	
ATR-OW1(39)-G060717	6/7/2017	6.89	0.594	15.09	3.9	0.97	-103.7	270	270	6.2	19	0.02 U	1.0 U	9.7	0.42	

Table 2 (continued)
Summary of Measured Field Parameters, Geochemistry, and Metals
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry						Metals	
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	ATR-MW14-G092712	9/27/2012	7.07	0.407	13.87	0.0	0.43	30.3	250	260	2.4	7.1	0.02 U	14	0.08 U	0.44
	ATR-MW14	2/5/2013	7.50	0.390	12.86	67.0	0.92	-17.5	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW14-G030513	3/5/2013	7.22	0.393	12.95	0.0	0.17	13.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW14-G050213	5/2/2013	7.21	0.419	13.74	1.0	0.22	62.9	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW14-G100815	10/8/2015	7.14	0.635	13.20	0.5	0.14	-108.3	270	270	35	5.5	0.02 U	15	0.91	0.97
	ATR-MW14-G022916	2/29/2016	7.37	0.933	13.10	25.6	0.20	-154.4	390	390	160	9.9	0.056	5.7	7.5	0.57
	ATR-MW14-G061516	6/15/2016	6.82	1.173	16.72	3.4	0.52	-152.5	NA	NA	240	NA	NA	NA	NA	NA
	ATR-MW14-G092816	9/28/2016	7.36	0.801	14.86	1.3	0.31	-187.0	NA	NA	120	NA	NA	NA	NA	NA
	ATR-MW14-G020117	2/1/2017	6.95	0.527	9.31	6.4	0.59	-141.1	410 X	410 X	130	13	0.02 U	3.4	9.0	0.42
	ATR-MW14-G060717	6/7/2017	6.77	0.953	13.36	<1.0	0.55	-163.9	310	310	30	10	0.02 U	3.7	7.3	0.28
	MTR-MW24(24.9)-6082213	7/22/2013	7.29	0.628	13.40	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24 (24.9)-G100815	10/8/2015	6.95	0.693	14.00	4.2	0.92	7.9	290	290	1.4	39	0.19	12	0.13	0.26
	ATR-MW24(24.9)-G022916	2/29/2016	7.31	0.729	12.29	9.2	1.25	50.9	300	300	1.6	27	0.34	39	0.08 U	0.12
	ATR-MW24(24.8)-G061516	6/15/2016	6.72	0.680	13.77	4.8	0.54	-110.0	NA	NA	4.8	NA	NA	NA	NA	NA
	ATR-MW24(24.9)-G092816	9/28/2016	7.06	0.670	14.30	4.1	1.71	-9.3	NA	NA	2.8	NA	NA	NA	NA	NA
	ATR-MW24(24.9)-G013117	1/31/2017	7.35	0.635	11.47	2.5	1.03	-94.1	290 X	290 X	3.1	35	0.02 U	6.3	2.1	0.66
	ATR-MW24(24.9)-G060617	6/6/2017	6.29	0.621	14.24	<1.0	0.56	-77.7	250	250	2.6	34	0.02 U	19	1.2	0.59
	ATR-MW24(55.4)-G030513	3/5/2013	7.00	0.977	12.27	0.0	0.22	-46.1	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24(55.4)-G050213	5/2/2013	7.04	0.703	13.00	0.7	0.20	-37.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24(55.4)-G050213R	5/2/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24 (55.9)-G100815	10/8/2015	6.81	0.876	13.21	0.0	0.36	-28.6	390	390	2	26	0.02 U	24	0.44	0.52
	ATR-MW24(55.9)-G022916	2/29/2016	7.29	0.802	12.28	6.3	0.30	-28.4	400	400	1.8	18	0.02 U	22	0.41	0.57
	ATR-MW24(55.4)-G061516	6/15/2016	6.65	0.803	14.81	1.1	0.57	-79.5	NA	NA	5.7	NA	NA	NA	NA	NA
	ATR-MW24(55.4)-G092816	9/28/2016	7.10	0.740	13.07	0.0	0.33	-49.9	NA	NA	3.1	NA	NA	NA	NA	NA
	ATR-MW24(55.4)-G013117	1/31/2017	7.31	0.767	9.80	1.2	1.11	-33.3	510 X	510 X	160	13	0.02 U	3.4	21	1.1
	ATR-MW24(55.4)-G060717	6/7/2017	6.72	1.143	12.89	<1.0	0.61	-167.3	350	350	84	13	0.02 U	2.0 U	14	0.30
	ATR-OW2(33)-G121814	12/18/2014	7.37	0.490	13.37	0.2	0.46	-91.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW2 (33)-G100815	10/8/2015	7.10	0.551	17.22	67.1	2.47	-101.8	270	270	42	16	0.02 U	3.5	3.6	0.48
	ATR-OW2(33)-G022916	2/29/2016	7.27	1.039	12.87	150.0	5.52	-0.8	440	440	160	21	0.14	8.6	31	1.5
	ATR-OW2(33)-G061516	6/15/2016	7.37	0.632	23.12	176.6	0.68	-143.6	NA	NA	6.4	NA	NA	NA	NA	NA
	ATR-OW2(33)-G092716	9/27/2016	7.83	0.637	15.91	9.4	0.11	-139.8	NA	NA	6.5	NA	NA	NA	NA	NA
	ATR-OW2(33)-G013117	1/31/2017	7.20	0.797	12.12	9.0	0.15	-127.1	400 X	400 X	16	30	0.02 U	1.2	5.9	0.53
	ATR-OW2(33)-G060617	6/6/2017	6.89	0.806	15.32	21.0	0.90	-133.0	390	390	18	28	0.02 U	2.0 U	9.2	0.85
	ATR-OW2(53)-G121814	12/18/2014	7.60	0.510	13.36	2.7	0.48	-123.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW2 (53)-G100815	10/8/2015	6.75	1.517	15.33	1.0	0.33	-112.4	650	650	440	2.6	0.02 U	1.0 U	8.6	1.6
	ATR-OW2(53)-G022916	2/29/2016	7.45	1.500	12.50	0.5	4.05	-14.5	540	540	370	7.1	0.17	7.2	37	0.89
	ATR-OW2(53)-G061616	6/16/2016	6.79	1.143	17.24	28.4	0.54	-163.5	NA	NA	320	NA	NA	NA	NA	NA
	ATR-OW2(53)-G092716	9/27/2016	8.14	0.776	16.34	19.7	0.14	-176.6	NA	NA	81	NA	NA	NA	NA	NA
	ATR-OW2(53)-G013117	1/31/2017	7.38	0.890	11.81	1.9	0.05	-166.8	460 X	460 X	110	9.3	0.02 U	1 U	15	0.36
	ATR-OW2(53)-G060617	6/6/2017	6.58	0.960	15.40	6.1	1.26	-121.0	480	480	5.8	16	0.02 U	21	20	0.16

Table 2 (continued)
Summary of Measured Field Parameters, Geochemistry, and Metals
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry						Metals	
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone B	ATR-OW3(35)-G121614	12/16/2014	7.50	0.652	13.53	7.5	4.24	-62.8	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3 (35)-G100715	10/7/2015	7.12	0.953	14.73	0.0	0.25	-136.7	390	390	130	16	0.02 U	1.0 U	23	1.6
	ATR-OW3(35)-G022916	2/29/2016	7.95	0.733	12.05	13.9	4.22	-36.5	310	310	16	22	0.098	1 U	12	0.72
	ATR-OW3(35)-G061516	6/15/2016	7.35	0.628	17.09	45.3	0.81	-179.9	NA	NA	5.3	NA	NA	NA	NA	NA
	ATR-OW3(35)-G092716	9/27/2016	7.23	0.644	20.01	17.6	0.82	-161.1	NA	NA	3.9	NA	NA	NA	NA	NA
	ATR-OW3(35)-G013117	1/31/2017	7.49	0.742	11.61	0.0	0.06	-180.0	350 X	350 X	6.4	28	0.02 U	14	11	0.48
	ATR-OW3(35)-G060717	6/7/2017	7.16	0.671	13.29	0.0	0.95	-150.0	310	310	4.1	19	0.02 U	23	13	0.56
	ATR-OW3(55)-G121614	12/16/2014	7.04	0.756	13.04	1.0	0.40	-26.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3 (55)-G100715	10/7/2015	6.55	1.594	15.15	3.8	0.20	-155.2	660	660	1600	24	0.02 U	12	11	2
	ATR-OW3 (55)-G100715 R	10/7/2015	NA	NA	NA	NA	NA	NA	690	690	1600	28	0.02 U	12	11	2.2
	ATR-OW3(55)-G022916	2/29/2016	6.97	2.009	12.16	2.9	4.68	12.5	910	910	560	10	0.15	1.0 U	29	3.5
	ATR-OW3(55)-G022916 R	2/29/2016	NA	NA	NA	NA	NA	NA	900	900	700	10	0.15	1.0 U	29	3.3
	ATR-OW3(55)-G061516	6/15/2016	6.53	1.685	16.80	21.0	0.60	-113.0	NA	NA	410	NA	NA	NA	NA	NA
ATR-OW3(55)-G092716	9/27/2016	6.68	1.500	17.05	5.1	0.32	-120.2	NA	NA	310	NA	NA	NA	NA	NA	
ATR-OW3(55)-G013117	1/31/2017	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW3(55)-G060717	6/17/2017	6.69	1.632	13.70	28.9	1.41	-138.7	610	610	580	16	0.02 U	1.0 U	150	0.32	
Zone C	ATR-MW15-G041312	4/13/2012	7.18	0.388	13.46	2.3	0.23	-59.1	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-G041312R	4/13/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-G030613	3/6/2013	7.26	0.483	12.85	0.0	0.24	-35.3	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-G050213	5/2/2013	7.35	0.366	13.43	1.1	0.19	-44.6	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-G050213R	5/2/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-6082213	7/22/2013	7.36	0.466	14.10	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-G101315	10/13/2015	6.65	1.168	12.99	9.1	0.16	-92.1	440 x	440 x	540	16	0.02 U	5.0	1.5	1.1
	ATR-MW15-G030116	3/1/2016	6.49	3.095	11.64	8.3	3.42	46.5	1100	1100	1000	11	0.086	1.0 U	64	3.5
	ATR-MW15-G061516	6/15/2016	6.27	2.839	16.58	1.3	0.63	-91.4	NA	NA	1000	NA	NA	NA	NA	NA
	ATR-MW15-G092716	9/27/2016	7.57	2.322	16.36	3.0	0.23	-123.5	NA	NA	760	NA	NA	NA	NA	NA
	ATR-MW15-G013117	1/31/2017	6.98	1.742	11.00	9.7	0.36	-132.3	920 X	920 X	730	26	0.02 U	1.3	88	0.74
	ATR-MW15-G060617	6/6/2017	6.68	1.840	14.80	26.2	0.44	-104.4	760	760	600	28	0.02 U	1.0 U	83	0.83
	ATR-MW25(16.4)-G092712	9/27/2012	7.21	0.410	15.24	0.6	0.30	-71.6	230	240	3.2	20	0.02 U	11	0.97	0.34
	ATR-MW25(16.4)	2/5/2013	7.51	0.412	11.36	0.0	0.78	-63.7	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(16.4)-G030613	3/6/2013	7.27	0.398	10.79	0.0	0.17	-12.3	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(16.4)-G050213	5/2/2013	7.33	0.383	11.64	0.0	0.18	-58.7	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(16.4)-G101315	10/13/2015	7.28	0.691	14.04	0.0	2.56	-65.0	250 x	250 x	3.4	28	0.02 U	19	0.4	0.33
	ATR-MW25(16.4)-G030116	3/1/2016	6.82	0.798	10.45	20.8	5.47	-93.9	370	370	33	35	0.067	3.5	4.9	0.51
	ATR-MW25(16.4)-G061516	6/15/2016	6.84	0.580	14.17	1.8	0.56	-114.1	NA	NA	56	NA	NA	NA	NA	NA
	ATR-MW25(16.4)-G092716	9/27/2016	7.20	0.848	17.68	5.6	0.38	-142.9	NA	NA	49	NA	NA	NA	NA	NA
ATR-MW25(16.4)-G013117	1/31/2017	7.34	0.914	11.75	0.1	0.01	-150.4	440 X	440 X	39	27	0.02 U	5.9	8.5	0.45	
ATR-MW25(16.4)-G060617	6/6/2017	7.01	0.891	14.44	0.0	0.40	-118.9	440	440	6.1	29	0.02 U	1.8	8.3	0.45	
ATR-MW25(16.4)-G060617R	6/6/2017	NA	NA	NA	NA	NA	NA	430	430	6.3	29	0.02 U	1.8	8.0	0.43	

Table 2 (continued)
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TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry						Metals	
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone C	ATR-MW25(32.6)-G041612	4/16/2012	7.36	0.349	13.46	7.9	0.20	-83.2	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G030613	3/6/2013	7.40	0.466	12.25	0.0	0.25	-45.2	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G050213	5/2/2013	7.44	0.335	12.88	1.0	0.19	-79.7	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G061914	6/19/2014	6.92	0.451	13.92	4.4	0.32	-77.7	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G101315	10/13/2015	7.43	0.561	13.20	0.0	0.16	-88.9	220 x	220 x	5.4	14	0.02 U	5.5	0.4	0.29
	ATR-MW25(32.6)-G030116	3/1/2016	6.55	2.101	12.01	14.5	0.55	-57.4	850	850	630	13	0.12	1 U	24	2.8
	ATR-MW25(32.6)-G061516	6/15/2016	6.49	1.340	14.69	6.3	0.51	-80.5	NA	NA	320	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G092716	9/27/2016	6.73	0.911	15.32	3.0	0.25	-99.8	NA	NA	150	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G013117	1/31/2017	7.03	0.840	12.02	0.4	0.04	-112.2	410 X	410 X	76	17	0.02 U	1 U	13	0.54
	ATR-MW25(32.6)-G060617	6/6/2017	6.72	1.254	14.45	2.4	0.38	-90.0	610	610	91	21	0.02 U	1.0 U	19	0.39
	MTR-MW25(45.2)-6082213	7/22/2013	7.04	0.463	14.10	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G101315	10/13/2015	7.38	0.562	13.09	0.0	0.26	-37.5	230 x	230 x	2.1	8.9	0.02 U	13	0.16	0.27
	ATR-MW25(45.2)-G030116	3/1/2016	6.68	1.519	10.56	22.5	0.28	-68.5	620	620	430	7.6	0.12	1 U	20	1.5
	ATR-MW25(45.2)-G061516	6/15/2016	6.18	2.025	17.09	1.3	0.55	-75.9	NA	NA	710	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G092716	9/27/2016	7.03	2.479	15.70	19.1	0.17	-91.0	NA	NA	920	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G013117	1/31/2017	6.76	2.098	11.91	2.0	0.05	-108.1	960 X	960 X	740	14	0.02 U	1.7	62	0.71
	ATR-MW25(45.2)-G060617	6/6/2017	6.71	1.605	15.18	0.0	0.47	-103.2	680	680	460	15	0.02 U	1.0 U	49	0.61
	ATR-OW4(35)-G121614	12/16/2014	7.60	0.461	12.99	-0.1	0.42	-123.8	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW4(35)-G101315	10/13/2015	6.11	2.210	13.46	54.6	0.09	-109.9	670 x	670 x	1900	14	0.057	5.3	18	2.1
	ATR-OW4(35)-G030116	3/1/2016	6.36	2.405	9.38	18.4	3.52	41.6	840	840	900	9	0.14	1 U	31	3.6
	ATR-OW4(35)-G061516	6/15/2016	6.40	2.433	23.40	27.7	0.61	-101.7	NA	NA	730	NA	NA	NA	NA	NA
	ATR-OW4(35)-G092716	9/27/2016	6.72	1.835	16.08	8.8	0.55	-115.2	NA	NA	430	NA	NA	NA	NA	NA
	ATR-OW4(35)-G013117	1/31/2017	5.92	3.339	10.80	38.2	0.54	-25.1	1,400 X	1,400 X	2,100	1 U	0.02 U	2.1	210	3.3
	ATR-OW4(35)-G060717	6/7/2017	6.70	2.438	13.93	4.1	0.38	-144.0	1,200	1,200	530	14	0.02 U	1.0 U	97	1.8
	ATR-OW4(54)-G121614	12/16/2014	7.57	0.558	12.87	0.5	0.43	-142.8	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW4(54)-G101315	10/13/2015	7.45	0.596	13.29	0.0	0.17	-140.2	240 x	240 x	2.1	6.2	0.02 U	17	0.92	0.044
	ATR-OW4(54)-G030116	3/1/2016	7.82	0.569	9.93	9.5	3.58	-45.2	250	250	8.3	5.5	0.02 U	13	1.5	0.072
	ATR-OW4(54)-G061516	6/15/2016	7.35	0.509	24.52	109.9	1.32	-134.3	NA	NA	4.2	NA	NA	NA	NA	NA
ATR-OW4(54)-G092716	9/27/2016	7.30	0.583	14.87	2.0	0.32	-197.7	NA	NA	39	NA	NA	NA	NA	NA	
ATR-OW4(54)-G013117	1/31/2017	7.28	0.771	11.09	0.6	0.34	-124.5	450 X	450 X	320	3.3	0.02 U	1 U	3.6	0.13	
ATR-OW4(54)-G060617	6/6/2017	6.90	1.378	14.46	3.6	0.37	-130.1	710	710	450	4.5	0.02 U	1.0 U	8.8	0.17	
Zone D	ATR-MW16-G092612	9/26/2012	7.23	0.383	13.31	0.0	0.24	-21.7	230	230	1.7	11	0.02 U	12	0.15	0.080
	ATR-MW16-G030613	3/6/2013	6.76	0.870	13.16	0.0	0.11	-113.3	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW16-G030613R	3/6/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW16-G040313	4/3/2013	6.12	0.992	13.09	0.0	0.20	-126.5	510	510	43	14	0.02 U	9.5	27	1.2
	ATR-MW16-G050213	5/2/2013	6.90	0.927	13.24	1.0	0.18	-124.2	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW16-G100715	10/7/2015	7.10	0.716	13.29	0.0	0.28	-98.1	320	320	2.8	12	0.02 U	8.8	3.5	0.13
	ATR-MW16-G030116	3/1/2016	7.75	0.722	11.12	1.7	3.62	0.0	320	320	3.4	13	0.020 U	4.1	2.5	0.14
	ATR-MW16-G061416	6/14/2016	6.85	1.023	15.26	15.2	0.55	-123.5	NA	NA	220	NA	NA	NA	NA	NA
	ATR-MW16-G092616	9/26/2016	7.37	1.653	14.98	1.0	0.15	-171.3	NA	NA	190	NA	NA	NA	NA	NA
	ATR-MW16-G013017	1/30/2017	7.76	1.529	11.04	5.9	0.43	-169.3	840 X	840 X	110	16	0.02 U	11	13	0.26
ATR-MW16-G060617	6/6/2017	6.51	1.568	14.31	<1.0	0.59	-106.8	980	980	140	22	0.02 U	1.0 U	22	0.25	

Table 2 (continued)
Summary of Measured Field Parameters, Geochemistry, and Metals
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry						Metals	
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone D	ATR-MW17-G092612	9/26/2012	7.00	0.663	12.60	0.0	0.23	1.2	380	380	1.5	37	0.79	25	0.08 U	0.31
	ATR-MW17	12/18/2012	7.12	0.563	11.94	NM	0.24	74.3	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW17-G030613	3/6/2013	7.11	0.552	11.36	1.8	0.14	-69.8	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW17-G030613R	3/6/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW17-G040313	4/3/2013	7.10	0.572	12.12	0.3	0.26	4.7	360	360	3.4	26	0.44	22	0.08 U	0.32
	ATR-MW17-G050213	5/2/2013	7.16	0.563	12.67	2.9	0.19	-22.1	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW17-G100715	10/7/2015	7.11	0.846	13.20	51.2	0.31	213.1	360	360	1.7	24	1.2	23	1.8	0.62
	ATR-MW17-G030116	3/1/2016	7.74	0.787	9.19	16.4	3.81	59.7	330	330	1.6	20	0.9	20	0.3	0.53
	ATR-MW17-G061416	6/14/2016	6.71	0.734	13.17	9.7	0.60	226.9	NA	NA	6.2	NA	NA	NA	NA	NA
	ATR-MW17-G092616	9/26/2016	7.00	0.910	14.64	8.7	0.24	182.1	NA	NA	2.2	NA	NA	NA	NA	NA
	ATR-MW17-G013017	1/30/2017	7.24	0.677	8.64	0.0	0.06	-1.1	350 X	350 X	15	23	0.46	19	0.49	1.7
	ATR-MW17-G060617	6/6/2017	5.56	0.734	13.63	<1.0	0.66	39.0	360	360	2.8	21	0.85	17	0.56	0.74
	ATR-MW26(17.5)-G092712	9/27/2012	7.18	0.427	14.78	0.0	0.28	-32.4	250	250	2.3	19	0.02 U	13	2.9	0.24
	ATR-MW26(17.5)-G010813	1/8/2013	7.00	0.599	12.46	1.5	0.38	-34.8	290	290	7.6	16	0.02 U	3.6	NA	NA
	ATR-MW26(17.5)	2/5/2013	7.55	0.419	12.55	0.0	0.90	-118.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(17.5)-G030613	3/6/2013	7.33	0.407	12.42	0.0	0.18	-106.7	260	260	2.8	18	0.02 U	3.2	2.3	0.42
	ATR-MW26(17.5)-G040313	4/3/2013	6.07	0.406	12.39	0.0	0.16	-12.8	260	260	2.7	17	0.02 U	3.8	2.2	0.42
	ATR-MW26(17.5)-G050313	5/3/2013	7.28	0.408	12.54	4.7	0.22	-108.3	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26 (17.5)-G100715	10/7/2015	6.98	0.694	14.18	3.1	0.32	-115.3	290	290	47	15	0.15	1.4	14	0.99
	ATR-MW26(17.5)-G030116	3/1/2016	7.37	0.698	12.04	29.8	0.88	-144.6	350	350	22	19	0.1	1 U	14	1.0
	ATR-MW26(17.5)-G061416	6/14/2016	6.97	0.816	13.03	9.5	0.90	-133.4	NA	NA	46	NA	NA	NA	NA	NA
	ATR-MW26(17.5)-G092616	9/26/2016	7.39	0.902	15.58	0.0	0.28	-179.5	NA	NA	13	NA	NA	NA	NA	NA
	ATR-MW26(17.5)-G013017	1/30/2017	7.35	0.722	12.03	0.0	0.03	-147.0	410 X	410 X	5.4	20	0.02 U	1 U	11	0.39
	ATR-MW26(17.5)-G060617	6/6/2017	6.24	0.875	14.17	<1.0	0.40	-135.8	450	450	4.6	19	0.02 U	1.0 U	12	0.46
	ATR-MW26(28.8)-G092712	9/27/2012	7.23	0.416	13.02	0.4	0.20	204.5	250	250	1.1	11	0.02 U	21	0.15	0.093
	ATR-MW26(28.8)-G092712R	9/27/2012	NA	NA	NA	NA	NA	NA	240	240	1.1	11	0.02 U	21	0.08 U	0.091
	ATR-MW26(28.8)	12/18/2012	6.70	0.900	13.40	NM	0.19	-96.2	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(28.8)-G010813	1/8/2013	6.39	1.037	12.33	5.0	0.29	-71.4	520	520	240	15	0.02 U	1 U	NA	NA
	ATR-MW26(28.8)	2/5/2013	6.88	0.737	13.15	NM	0.25	-94.9	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(28.8)-G030613	3/6/2013	6.79	0.725	12.99	0.0	0.14	-82.1	420	420	150	18	0.02 U	5.0	5.4	2.0
	ATR-MW26(28.8)-G040313	4/3/2013	6.77	0.741	13.05	0.0	0.13	-77.2	410	410	140	20	0.02 U	5.1	6.7	1.6
	ATR-MW26(28.8)-G050313	5/3/2013	6.98	0.581	13.19	0.0	0.22	-84.5	NA	NA	NA	NA	NA	NA	NA	NA
ATR-MW26 (28.8)-G100715	10/7/2015	7.20	0.653	13.93	0.0	0.27	-114.3	300	300	3.6	9.3	0.02 U	2.2	4.2	0.17	
ATR-MW26(28.8)-G030116	3/1/2016	7.40	0.791	11.31	14.2	0.29	-129.0	450	450	9.3	11	0.1	1 U	13	0.25	
ATR-MW26(28.8)-G061416	6/14/2016	7.29	1.113	15.09	10.9	0.57	-103.7	NA	NA	7.9	NA	NA	NA	NA	NA	
ATR-MW26(28.8)-G092616	9/26/2016	6.79	1.257	14.78	7.5	0.30	-128.4	NA	NA	3.5	NA	NA	NA	NA	NA	
ATR-MW26(28.8)-G013017	1/30/2017	6.74	1.087	10.85	0.0	0.03	-103.5	580 X	580 X	110	14	0.02 U	1 U	43	0.34	
ATR-MW26(28.8)-G060617	6/6/2017	5.93	1.153	14.43	<1.0	0.42	-75.3	510	510	55	17	0.02 U	1.0 U	38	0.34	

Table 2 (continued)
Summary of Measured Field Parameters, Geochemistry, and Metals
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry						Metals	
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone D	ATR-MW26(58.2)-G041612	4/16/2012	7.25	0.418	12.28	0.0	0.26	-232.8	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(58.2)-G060413	6/4/2013	6.93	0.417	12.97	NM	0.55	105.4	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(58.8)-G100715	10/7/2015	6.84	0.496	15.39	0.0	0.40	-45.6	220	220	1.4	6.9	0.02 U	15	0.083	0.059
	ATR-MW26(58.8)-G030116	3/1/2016	7.81	0.615	11.69	8.1	0.06	-191.2	310	310	57	4.3	0.048	1.9	5.5	0.29
	ATR-MW26(58.8)-G061416	6/14/2016	7.52	0.937	14.11	4.8	0.57	-119.4	NA	NA	130	NA	NA	NA	NA	NA
	ATR-MW26(58.8)-G092616	9/26/2016	7.30	1.055	14.46	0.0	0.32	-188.4	NA	NA	98	NA	NA	NA	NA	NA
	ATR-MW26(58.8)-G013017	1/30/2017	7.33	0.803	11.24	0.0	0.04	-156.6	420 X	420 X	94	5.8	0.02 U	1 U	18	0.24
	ATR-MW26(58.8)-G013017R	1/30/2017	NA	NA	NA	NA	NA	NA	420 X	420 X	95	5.7	0.02 U	1 U	18	0.24
	ATR-MW26(58.2)-G060617	6/6/2017	6.54	0.907	15.45	<1.0	0.49	-154.9	400	400	95	7.5	0.02 U	1.0 U	24	0.46
	ATR-ZVI-2(17.5)-G121812	12/18/2012	7.12	0.592	13.04	4.9	0.31	19.2	330	330	33	19	0.02 U	5.7	3.0	1.2
	ATR-ZVI-2(17.5)-G010813	1/8/2013	7.14	0.440	12.96	4.8	0.24	-116.7	300	300	12	18	0.02 U	5.0	4.2	1.0
	ATR-ZVI-2(17.5)-G030613	3/6/2013	7.35	0.404	11.91	4.1	0.21	-117.3	250	250	2.2	19	0.02 U	4.8	9.0	0.60
	ATR-ZVI-2(17.5)-G040313	4/3/2013	7.28	0.422	11.85	3.4	0.21	-128.9	260	260	2.1	18	0.02 U	7.3	4.0	0.56
	ATR-ZVI-2(17.5)-G050313	5/3/2013	7.34	0.428	11.95	3.6	0.19	-134.2	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2(17.5)-G100715	10/7/2015	7.38	0.661	14.38	3.6	0.62	-136.6	280	280	25	16	0.02 U	1.0 U	12	0.79
	ATR-ZVI2(17.5)-G030216	3/2/2016	6.61	0.642	11.03	49.0	0.57	-135.9	290	290	3.1	19	0.081	1 U	10	0.45
	ATR-ZVI2(17.5)-G061416	6/14/2016	7.65	0.783	14.34	31.1	0.48	-169.2	NA	NA	17	NA	NA	NA	NA	NA
	ATR-ZVI2(17.5)-G092616	9/26/2016	7.41	0.841	15.98	3.5	0.31	-189.6	NA	NA	8.2	NA	NA	NA	NA	NA
	ATR-ZVI2(17.5)-G013117	1/31/2017	7.53	0.627	9.73	9.6	0.26	-175.9	290 X	290 X	17	20	0.02 U	1 U	13	0.34
	ATR-ZVI2(17.5)-G060617	6/6/2017	7.25	0.810	13.31	8.0	0.98	-179.1	410	410	3.9	19	0.02 U	1.0 U	16	0.34
	ATR-ZVI-2(32.5)-G121812	12/18/2012	6.80	0.887	13.13	3.8	0.29	26.1	540	540	270	12	0.02 U	3.6	4.7	0.66
	ATR-ZVI-2(32.5)-G010813	1/8/2013	6.88	0.535	13.43	2.7	0.20	-75.9	350	350	87	11	0.02 U	1 U	2.5	0.42
	ATR-ZVI-2(32.5)-G030613	3/6/2013	7.18	0.426	12.91	4.3	0.13	-109.5	270	280	26	11	0.02 U	2.0	2.2	0.33
	ATR-ZVI-2(32.5)-G030613R	3/6/2013	NA	NA	NA	NA	NA	NA	280	280	26	11	0.02 U	2.0	2.2	0.32
	ATR-ZVI-2(32.5)-G040313	4/3/2013	6.90	0.427	13.11	0.4	0.21	-93.8	270	270	20	11	0.02 U	2.9	2.1	0.29
	ATR-ZVI-2(32.5)-G040313R	4/3/2013	NA	NA	NA	NA	NA	NA	270	270	23	11	0.02 U	3.0	1.9	0.28
	ATR-ZVI-2(32.5)-G050313	5/3/2013	7.23	0.508	13.10	0.5	0.19	-125.6	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2(32.5)-G100715	10/7/2015	7.26	0.547	13.90	4.2	0.24	-83.8	250	250	5.2	10	0.02 U	9.9	1.7	0.15
	ATR-ZVI2(32.5)-G030116	3/1/2016	7.54	0.592	11.37	9.6	0.25	-122.3	320	320	7.5	11	0.026	5.1	2.5	0.15
	ATR-ZVI2(32.5)-G061416	6/14/2016	7.58	0.208	14.48	5.5	0.55	-133.7	NA	NA	9.7	NA	NA	NA	NA	NA
	ATR-ZVI2(32.5)-G092616	9/26/2016	7.30	0.814	14.08	0.0	0.33	-151.2	NA	NA	18	NA	NA	NA	NA	NA
	ATR-ZVI2(32.5)-G013117	1/31/2017	7.15	1.098	11.52	0.0	0.38	-137.7	530 X	530 X	120	12	0.02 U	1 U	8.0	0.14
	ATR-ZVI2(32.5)-G060617	6/6/2017	6.73	1.214	14.04	6.0	1.87	-109.0	650	650	53	15	0.02 U	1.5	19	0.16
	ATR-OW5(16)-G121714	12/17/2014	7.31	0.629	12.96	6.4	0.51	53.3	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(16)-G100715	10/7/2015	6.96	1.215	16.34	9.3	3.02	-80.3	510	510	140	20	0.02 U	1.0 U	9.9	1.1
	ATR-OW5(16)-G030116	3/1/2016	7.86	0.830	9.19	8.0	4.98	26.4	380	380	18	19	0.066	1 U	6.8	0.47
	ATR-OW5(16)-G061416	6/14/2016	7.09	0.679	14.47	45.6	1.55	-128.3	NA	NA	12	NA	NA	NA	NA	NA
	ATR-OW5(16)-G092716	9/27/2016	7.79	0.643	16.18	9.3	0.31	-143.6	NA	NA	11	NA	NA	NA	NA	NA
	ATR-OW5(16)-G013017	1/30/2017	7.19	0.694	10.74	7.2	1.66	-139.2	340 X	340 X	18	25	0.02 U	2.5	7.4	0.38
	ATR-OW5(16)-G060617	6/6/2017	6.99	0.669	14.36	4.1	0.76	-131.7	330	330	4.5	24	0.02 U	6.2	5.2	0.30

Table 2 (continued)
Summary of Measured Field Parameters, Geochemistry, and Metals
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Field Measured Parameters						Geochemistry						Metals	
			pH	Conductivity	Temperature	Turbidity	DO	ORP	Alkalinity, Bicarbonate (as CaCO3)	Alkalinity, Total (as CaCO3)	TOC	Chloride	Nitrogen, Nitrate	Sulfate	Iron	Manganese
			S.U.	mS/cm	°C	NTU	mg/L	mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone D	ATR-OW5(35)-G121714	12/17/2014	7.51	0.534	12.78	1.1	0.44	-76.0	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5 (35)-G100715	10/7/2015	7.18	1.160	13.72	0.0	0.17	-125.0	520	520	190	9.5	0.02 U	1.0 U	7	0.45
	ATR-OW5(35)-G030116	3/1/2016	7.57	1.109	10.99	0.0	3.69	-2.3	450	450	180	8.4	0.098	1 U	12	0.58
	ATR-OW5(35)-G061416	6/14/2016	7.01	1.026	15.24	5.2	0.56	-149.2	NA	NA	110	NA	NA	NA	NA	NA
	ATR-OW5(35)-G092616	9/26/2016	7.35	1.481	16.35	8.2	0.16	-172.2	NA	NA	130	NA	NA	NA	NA	NA
	ATR-OW5(35)-G013017	1/30/2017	7.00	1.216	11.41	2.1	0.24	-159.6	630 X	630 X	140	12	0.02 U	1 U	43	1.2
	ATR-OW5(35)-G060617	6/6/2017	6.70	0.794	14.39	2.3	1.43	-121.0	390	390	29	8.0	0.02 U	1.5	27	0.79
	ATR-OW5(44)-G121714	12/17/2014	7.67	0.495	12.53	1.0	0.43	-120.3	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5 (54)-G100715	10/7/2015	7.37	0.540	13.70	0.0	0.11	-116.6	230	230	2.3	11	0.02 U	10	1.4	0.16
	ATR-OW5(54)-G030116	3/1/2016	7.09	2.142	6.05	38.8	4.17	-17.7	880	880	560	11	2.3	1 U	17	0.85
	ATR-OW5(45)-G061416	6/14/2016	6.61	1.280	16.08	26.5	0.60	-106.3	NA	NA	280	NA	NA	NA	NA	NA
	ATR-OW5(45)-G092616	9/26/2016	7.03	1.528	16.00	8.1	0.18	-158.1	NA	NA	220	NA	NA	NA	NA	NA
	ATR-OW5(45)-G013017	1/30/2017	6.74	1.959	10.55	1.8	0.55	-126.3	970 X	970 X	540	14	0.02 U	1 U	46	1.6
	ATR-OW5(44)-G060617	6/6/2017	6.72	2.047	17.02	8.1	1.20	-133.6	1,100	1,100	280	16	0.02 U	1.0 U	99	2.0

Notes:

Blue text is performance monitoring data

NA - Not Analyzed/Not Applicable

NM - Not Measured

J - Estimated concentration, analyte detected below quantitation limit

U - Analyzed but not detected above the MDL

mS/cm - milli Siemen/centimeter

µg/L - micro grams per liter

x - Identified in Blank

TOC - Total Organic Carbon

NTU - Nephelometric Turbidity Units

mg/L - milligram per liter

mV - millivolt

°C - degrees Celcius

S.U. - Standard Unit

ORP - Oxidation-Reduction Potential

* - Instrument reading suspect

Prepared by: RLB

Checked by: PJS

Table 3
Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Source - Behind	ATR-MW81(27)-G110512	11/5/12	270	2.8	40,000	413	280	2.9	100 U		13,000	99	3,700	59	576
	ATR-MW81(27)-G010713	1/7/13	250	2.6	50,000	516	320	3.3	100 U		8,800	67	7,400	118	707
	ATR-MW81(27)-G020513	2/5/13	410	4.2	47,000	485	370	3.8	200 U		10,000	76	7,300	117	686
	ATR-MW81(27)-G030613	3/6/13	420	4.3	53,000	547	420	4.3	100 U		11,000	84	6,600	106	745
	ATR-MW81(27)-G050313	5/3/13	440	4.5	46,000	475	370	3.8	200 U		11,000	84	6,900	110	677
	ATR-MW81(27)-G082715	8/27/15	290	3.0	53,000	547	260	2.7	200 U		4,700	36	7,500	120	708
	ATR-MW81(27)-G022316	2/23/16	250 U		74,000	763	360	3.7	250 U		250 U		21,000	336	1,103
	ATR-MW81(27)-G061616	6/16/16	100 U		57,000	588	320	3.3	100 U		100 U		43,000 J	688	1,279
	ATR-MW81(27)-G092916	9/29/16	50 U		13,000	134	81	0.84	50 U		50 U		20,000	320	455
	ATR-MW81(27)-G121316	12/13/16	50 U		9,700 J	100	68	0.70	50 U		50 U		17,000 J	272	373
ATR-MW81(27)-G060717	6/7/17	100 U		7,000	72.2	100 U		100 U		100 U		24,000	384	456	
Source - Behind	ATR-MW59(29)-G092712	9/27/12	220	2.3	42,000	433	290	3.0	100 U		50 U		10,000	160	599
	ATR-MW59(29)-G010713	1/7/13	150	1.5	31,000	320	190	2.0	100 U		50 U		13,000	208	531
	ATR-MW59(29)-G020413	2/4/13	160	1.7	29,000	299	190	2.0	10 U		5 U		18,000	288	591
	ATR-MW59(29)-G030613	3/6/13	69	0.71	18,000	186	140	1.4	40 U		20 U		23,000	368	556
	ATR-MW59(29)-G050313	5/3/13	100 U		26,000	268	100 U		200 U		100 U		21,000	336	604
	ATR-MW59(29)-G082715	8/27/15	130	1.3	30,000	309	130	1.3	100 U		100 U		23,000	368	680
	ATR-MW59(29)-G022316	2/23/16	25 U		110	1.1	25 U		25 U		25 U		9,200	147	148
	ATR-MW59(29)-G061716	6/17/16	25 U		25 U		25 U		25 U		25 U		11,000	176	176
	ATR-MW59(29)-G061716R	6/17/16	25 U		25 U		25 U		25 U		25 U		11,000	176	176
	ATR-MW59(29)-G093016	9/30/16	1 U		11	0.11	1 U		1 U		1 U		340	5.4	5.6
	ATR-MW59(29)-G093016R	9/30/16	1 U		13	0.13	1 U		1 U		1 U		320	5.1	5.3
	ATR-MW59(29)-G121316	12/13/16	1 U		6.3	0.06	1 U		1 U		1 U		15	0.24	0.30
	ATR-MW59(29)-G121316R	12/13/16	1 U		5.7	0.06	1 U		1 U		1 U		14	0.22	0.28
	ATR-MW59(29)-G060717	6/7/17	1 U		2.6	0.03	1 U		1 U		1 U		5.2 J	0.08	0.11
ATR-MW59(29)-G060717R	6/7/17	1 U		3.2	0.03	1 U		1 U		1 U		5.6	0.09	0.12	

Table 3 (continued)

Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Source - Behind	ATR-PM2-G110512	11/5/12	94	0.97	13,000	134	94	1.0	40 U		2,000	15	4,700	75	226
	ATR-PM2-G010713	1/7/13	70	0.72	9,200	95	67	0.7	20 U		660	5.0	4,400	70	172
	ATR-PM2-G020413	2/4/13	64	0.66	8,500	88	61	0.6	40 U		400	3.0	3,400	54	146
	ATR-PM2-G030613	3/6/13	79	0.81	8,300	86	59	0.6	20 U		300	2.3	3,100	50	139
	ATR-PM2-G050313	5/3/13	85	0.88	8,600	89	67	0.7	40 U		610	4.6	3,100	50	145
	ATR-PM2-G082715	8/27/15	5 U		380	3.9	5 U		5 U		5 U		1,200	19	23
	ATR-PM2-G022316	2/23/16	20 U		69	0.7	20 U		20 U		20 U		5,600	90	90
	ATR-PM2-G061616	6/16/16	10 U		20	0.2	10 U		10 U		10 U		5,300	85	85
	ATR-PM2-G092916	9/29/16	1 U		9.8	0.10	1 U		1 U		1 U		180	2.9	3.0
	ATR-PM2-G121316	12/13/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-PM2-G060717	6/7/17	1 U		12	0.12	1.2	0.01	1 U		1 U		360 J	5.8	5.9	
Source - Behind	ATR-PM3-G110512	11/5/12	200	2.1	43,000	444	280	2.9	100 U		74	0.56	7,600	122	571
	ATR-PM3-G010713	1/7/13	270	2.8	44,000	454	370	3.8	100 U		50 U		9,700	155	616
	ATR-PM3-G020413	2/4/13	340	3.5	46,000	475	410	4.2	200 U		100 U		9,900	158	641
	ATR-PM3-G030513	3/5/13	390	4.0	44,000	454	450	4.6	100 U		50 U		7,100	114	576
	ATR-PM3-G050213	5/2/13	340	3.5	37,000	382	390	4.0	200 U		100 U		8,300	133	522
	ATR-PM3-G082715	8/27/15	100 U		200	2.1	100 U		100 U		100 U		200	3.2	5.3
	ATR-PM3-G022316	2/23/16	100 U		15,000	155	110	1.1	100 U		100 U		15,000	240	396
	ATR-PM3-G061716	6/17/16	88	0.9	13,000	134	180	1.9	50 U		50 U		25,000	400	537
	ATR-PM3-G092916	9/29/16	100 U		9,200	95	110	1.1	100 U		100 U		34,000	544	640
	ATR-PM3-G121316	12/13/16	500 U		4,100	42	500 U		500 U		500 U		6,600	106	148
ATR-PM3-G060717	6/7/17	500 U		6,200	64	500 U		500 U		500 U		61,000 J	976	1,040	
Source - Inside	ATR-MW67(30)-G092612	9/26/12	20 U		7,900	81	69	0.71	40 U		20 U		870	14	96
	ATR-MW67(30)-G050613	5/6/13	50 U		21,000	217	170	1.8	100 U		50 U		1,800	29	247
	ATR-MW67-G031516	3/15/16	1.4	0.01	240	2.5	4.2	0.04	1.0	0.01	1.8	0.01	130	2.1	4.6
	ATR-MW67-G062016	6/20/16	1 UJ		160 J	1.7	2.1 J	0.02	1 UJ		1 UJ		64 J	1.0	2.7
	ATR-MW67-G092916	9/29/16	1 UJ		66 J	0.68	1 U		1 UJ		1 UJ		35 J	0.56	1.2
	ATR-MW67-G121216	12/12/16	1 U		18	0.19	1 U		1 U		1 U		10	0.16	0.35
	ATR-MW67-G060817	6/8/17	1 U		16	0.17	1 U		1 U		1 U		57 J	0.91	1.1

Table 3 (continued)

Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Source - Inside	ATR-MW68(32)-G050613	5/6/13	50 U		28,000	289	170	1.8	100 U		50 U		3,000	48	339
	ATR-MW68-G031516	3/15/16	9.5	0.10	660 J	6.8	14	0.14	1 U		1 U		100	1.6	8.7
	ATR-MW68-G061716	6/17/16	2.1	0.02	190	2.0	5.0	0.05	1 U		1 U		89	1.4	3.5
	ATR-MW68-G092916	9/29/16	1.1	0.01	200	2.1	2.1	0.02	1 U		1 U		420	6.7	8.8
	ATR-MW68-G121316	12/13/16	5 U		130	1.3	5 U		5 U		5 U		2,400	38.4	40
	ATR-MW68-G060817	6/8/17	2 U		66	0.68	2 U		2 U		2 U		540	8.6	9.3
Source - Inside	ATR-MW71(33)-G050613	5/6/13	100 U		38,000	392	240	2.5	200 U		100 U		7,500	120	514
	ATR-MW71-G031516	3/15/16	5 U		110	1.1	5 U		5 U		5 U		1,000	16	17
	ATR-MW71-G062016	6/20/16	1 U		26	0.3	1 U		1 U		1 U		300	4.8	5.1
	ATR-MW71-G092916	9/29/16	1 U		8.8	0.09	1 U		1 U		1 U		140	2.2	2.3
	ATR-MW71-G121216	12/12/16	1 U		8.7	0.09	1 U		1 U		1 U		270	4.3	4.4
	ATR-MW71-G060817	6/8/17	1 U		11	0.11	1 U		1 U		1 U		460 J	7.4	7.5
Source - Inside	ATR-MW72(32)-G030613	3/6/13	390	4.0	87,000	897	620	6.4	200 U		100 U		8,300	133	1,041
	ATR-MW72(32)-G050613	5/6/13	460	4.7	97,000	1,001	720	7.4	500 U		250 U		11,000	176	1,189
	ATR-MW72-G031516	3/15/16	1 U		48	0.5	1 U		1 U		1 U		88	1.4	1.9
	ATR-MW72-G062016	6/20/16	1 U		16	0.2	1 U		1 U		1 U		31	0.50	0.66
	ATR-MW72-G092916	9/29/16	1 U		11	0.11	1 U		1 U		1 U		40	0.64	0.75
	ATR-MW72-G121316	12/13/16	1 U		10	0.10	1 U		1 U		1 U		31	0.50	0.60
	ATR-MW72-G060817	6/8/17	1 U		8.8	0.09	1 U		1 U		1 U		6.5	0.10	0.19
Source - Inside	ATR-MW76(30)-G030513	3/5/13	92	0.9	19,000	196	210	2.2	40 U		20 U		4,100	66	265
	ATR-MW76(30)-G050613	5/6/13	20 U		7,100	73	49	0.5	40 U		20 U		650	10	84
	ATR-MW76-G031516	3/15/16	21	0.2	5,500	57	50	0.5	20 U		20 U		6,000	96	153
	ATR-MW76-G062016	6/20/16	31	0.3	8,700	90	82	0.8	1 U		1 U		22,000	352	443
	ATR-MW76-G092916	9/29/16	50 U		9,000	93	64	0.7	50 U		50 U		18,000	288	382
	ATR-MW76-G121416	12/14/16	50 U		4,900	51	50 U		50 U		50 U		13,000	208	259
	ATR-MW76-G060817	6/8/17	50 U		630	6.5	50 U		50 U		50 U		11,000	176	182

Table 3 (continued)

Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Source - Inside	ATR-MW77(41)-G030513	3/5/13	3	0.03	550	5.7	4.4	0.05	2 U		1 U		84	1.3	7.1
	ATR-MW77(41)-G050613	5/6/13	1 U		48	0.50	1 U		2 U		1 U		11	0.18	0.67
	ATR-MW77-G031516	3/15/16	1 U		1.8	0.02	1 U		1 U		1 U		6.7	0.11	0.13
	ATR-MW77-G062016	6/20/16	1 U		1 U		1 U		1 U		1 U		2.7	0.04	0.04
	ATR-MW77-G092916	9/29/16	1 U		1.2	0.01	1 U		1 U		1 U		1 U		0.01
	ATR-MW77-G121416	12/14/16	1 U		4.5	0.05	1 U		1 U		1 U		17	0.27	0.32
	ATR-MW77-G060817	6/8/17	1 U		2.9	0.03	1 U		1 U		1 U		53	0.85	0.88
Source - Inside	ATR-MW78(35)-G030513	3/5/13	8.2	0.08	2,700	28	16	0.2	10 U		5 U		77	1.2	29
	ATR-MW78(35)-G050613	5/6/13	5 U		360	3.7	5 U		10 U		5 U		540	8.6	12
	ATR-MW78-G031516	3/15/16	1 U		1.6	0.02	1 U		1 U		1 U		8.8	0.14	0.16
	ATR-MW78-G062016	6/20/16	1 U		2.9	0.03	1 U		1 U		1 U		1 U		0.03
	ATR-MW78-G092916	9/29/16	1 U		1.5	0.02	1 U		1 U		1 U		1 U		0.02
	ATR-MW78-G121416	12/14/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW78-G060817	6/8/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
Zone A	ATR-MW6C-G092612	9/26/12	10 U		3,600	37	10 U		20 U		10 U		1,200	19	56
	ATR-MW6C-G030513	3/5/13	5 U		2,400	25	13	0.13	10 U		5 U		740	12	37
	ATR-MW6C-G050713	5/7/13	5 U		1,800	19	10	0.10	10 U		5 U		1,200	19	38
	ATR-MW6C-G050713R	5/7/13	5 U		1,800	19	12	0.12	10 U		5 U		1,500	24	43
	ATR-MW6C-G082815	8/26/15	2 U		410	4.2	2 U		2 U		2 U		66	1.1	5.3
	ATR-MW6C-G022316	2/23/16	1 U		120	1.2	1 U		1 U		1 U		170	2.7	4.0
	ATR-MW6C-G061616	6/16/16	1 U		50	0.5	1 U		1 U		1 U		170	2.7	3.2
	ATR-MW6C-G092816	9/28/16	1 U		280	2.9	1.8	0.02	1 U		1.8	0.01	360	5.8	8.7
	ATR-MW6C-G020117	2/1/17	3.1	0.03	890	9.2	5.2	0.05	2 U		2 U		1,500	24	33
ATR-MW6C-G060717	6/7/17	11	0.11	2,500	26	27	0.28	1 U		1 U		980 J	16	42	

Table 3 (continued)

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			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone A	ATR-MW12-G050613	5/6/13	25 U		11,000	113	25 U		50 U		25 U		700	11	125
	ATR-MW12-G082615	8/26/15	10 U		2,900	30	14	0.14	10 U		10 U		560	9.0	39
	ATR-MW12-G022416	2/24/16	10 U		1,800	19	10 U		10 U		10 U		2,600	42	60
	ATR-MW12-G061616	6/16/16	5 U		630	6.5	5 U		5 U		5 U		1,300	21	27
	ATR-MW12-G092816	9/28/16	1 U		260	2.7	1.6	0.02	1 U		1 U		270	4.3	7.0
	ATR-MW12-G020117	2/1/17	1 U		230	2.4	1.6	0.02	1 U		1 U		190	3.0	5.4
	ATR-MW12-G060717	6/7/17	1 U		26	0.27	1 U		1 U		1 U		9.6 J	0.15	0.42
Zone A	ATR-MW13-G092712	9/27/12	10 U		4,900	51	31	0.32	20 U		10 U		440	7.0	58
	ATR-MW13-G050613	5/6/13	10 U		3,000	31	10 U		20 U		10 U		1,600	26	57
	ATR-MW13-G082615	8/26/15	10 U		3,400	35	16	0.17	10 U		10 U		870	14	49
	ATR-MW13-G030216	3/2/16	4.0	0.04	880	9.1	7.2	0.07	2 U		2 U		610	10	19
	ATR-MW13-G061616	6/16/16	1 U		190	2.0	1.0	0.01	1 U		1 U		96	1.5	3.5
	ATR-MW13-G092816	9/28/16	1 U		150	1.5	1 U		1 U		1 U		29	0.46	2.0
	ATR-MW13-G020117	2/1/17	1 U		70	0.72	1 U		1 U		1 U		47	0.75	1.5
ATR-MW13-G060717	6/7/17	1 U		370	3.8	2.8	0.03	1 U		1 U		150 J	2.4	6.2	
Zone A	ATR-MW62(36)-G050213	5/2/13	10 U		2,400	25	10 U		20 U		10 U		2,000	32	57
	ATR-MW62-G082715	8/27/15	20 U		5,600	58	21	0.22	20 U		20 U		1,600	26	84
	ATR-MW62-G022316	2/23/16	1 U		37	0.4	1 U		1 U		1 U		180	2.9	3.3
	ATR-MW62-G061616	6/16/16	1 U		4.8	0.05	1 U		1 U		1 U		39	0.6	0.67
	ATR-MW62-G092916	9/29/16	1 U		1.7	0.02	1 U		1 U		1 U		7.1	0.11	0.13
	ATR-MW62-G020117	2/1/17	1 U		2.5 J	0.03	1 U		1 U		1 U		73 J	1.2	1.2
	ATR-MW62(36)-G060717	6/7/17	1 U		1 U		1 U		1 U		1 U		2.3 J	0.0	0.04

Table 3 (continued)

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Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone A	ATR-MW20(35)-G050713	5/7/13	5 U		360	3.7	5 U		10 U		5 U		510	8.2	11.9
	ATR-MW20(35)-G082715	8/27/15	1 U		180	1.9	1.4	0.01	1.8	0.01	3.5	0.03	200	3.2	5.1
	ATR-MW20(35)-G082715R	8/27/15	1 U		180	1.9	1.2	0.01	1.8	0.01	3.5	0.03	250	4.0	5.9
	ATR-MW20(35)-G022316	2/23/16	1 U		27	0.3	1 U		1 U		1 U		99	1.6	1.9
	ATR-MW20(35)-G022316R	2/23/16	1 U		29	0.3	1 U		1 U		1 U		96	1.5	1.8
	ATR-MW20(35)-G061616	6/16/16	1 U		1.7	0.02	1 U		1 U		1 U		12	0.19	0.21
	ATR-MW20(35)-G061616R	6/16/16	1 U		2.1	0.02	1 U		1 U		1 U		12	0.19	0.21
	ATR-MW20(35)-G092816	9/28/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW20(35)-G092816R	9/28/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW20(35)-G020117	2/1/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW20(35)-G020117R	2/1/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW20(35)-G060717	6/7/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW20(35)-G060717R	6/7/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
Zone A	ATR-MW20(51)-G050713	5/7/13	3.4	0.04	670	6.9	3.3	0.03	2 U		1 U		270	4.3	11.3
	ATR-MW20(51)-G050713R	5/7/13	3.2	0.03	570	5.9	3.4	0.04	2 U		1 U		230	3.7	9.6
	ATR-MW20(51)-G082715	8/27/15	1 U		350	3.6	1.7	0.02	1 U		1 U		210	3.4	7.0
	ATR-MW20(51)-G022316	2/23/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW20(51)-G061616	6/16/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW20(51)-G092816	9/28/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW20(51)-G020117	2/1/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW20(51)-G060717	6/7/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
Zone A	ATR-MW82(58)-G030513	3/5/13	1 U		13	0.13	1.7	0.02	2 U		8.4	0.06	9.9	0.16	0.37
	ATR-MW82(58)-G050613	5/7/13	1 U		12	0.12	1 U		2 U		7.6	0.06	17	0.27	0.45
	ATR-MW82-G082615	8/26/15	1 U		21	0.22	1.8	0.02	1 U		8.3	0.06	15	0.24	0.54
	ATR-MW82-G022316	2/23/16	1 U		4.8	0.05	1.5	0.02	1 U		1 U		9.8	0.16	0.22
	ATR-MW82-G061616	6/16/16	1 U		1 U		1.1	0.01	1 U		1 U		1 U		0.01
	ATR-MW82-G092816	9/28/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW82-G020117	2/1/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW82-G060717	6/7/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00

Table 3 (continued)

Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone A	ATR-OW1(28)-G121714	12/17/14	7.2	0.07	1,300	13	11	0.11	1 U		1 U		500	8.0	21.6
	ATR-OW1(S)-G082715	8/27/15	2 U		270	2.8	2 U		2 U		2 U		240	3.8	6.6
	ATR-OW1(28)-G02216	2/24/16	5 UJ		530 J	5.5	5 UJ		5 UJ		5 UJ		850 J	13.6	19.1
	ATR-OW1(28)-G061616	6/16/16	1 U		18	0.2	1 U		1 U		1 U		26	0.4	0.60
	ATR-OW1(28)-G092816	9/28/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW1(28)-G013117	1/31/17	1 U		1 U		1 U		1 U		1 U		2.3	0.04	0.04
	ATR-OW1(28)-G060717	6/7/17	1 U		1 U		1 U		1 U		1 U		2.3	0.04	0.04
Zone A	ATR-OW1(39)-G121714	12/17/14	2.1	0.02	540	5.6	1 U		1 U		1 U		650	10	16
	ATR-OW1(D)-G082715	8/27/15	1 U		180	1.9	1 U		1 U		1 U		370	5.9	7.8
	ATR-OW1(39)-G022916	2/29/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW1(39)-G061616	6/16/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW1(39)-G092816	9/28/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW1(39)-G020117	2/1/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW1(39)-G060717	6/7/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
Zone B	ATR-MW14-G092712	9/27/12	1 U		53	0.55	2.3	0.02	2 U		390	3.0	30	0.48	4.0
	ATR-MW14-G030513	3/5/13	1.2	0.01	60	0.62	2.7	0.03	2 U		380	2.9	6.1	0.10	3.6
	ATR-MW14-G050213	5/2/13	1 U		55	0.57	2.3	0.02	2 U		320	2.4	4.2	0.07	3.1
	ATR-MW14-G100815	10/8/15	2 U		110	1.1	3.0	0.03	2 U		570 J	4.3	3.6	0.06	5.6
	ATR-MW14-G022916	2/29/16	2 U		700	7.2	6.4	0.07	2 U		5.1	0.04	340	5.4	12.8
	ATR-MW14-G061516	6/15/16	1 U		20	0.2	1.5	0.02	1 U		2.2	0.02	23	0.4	0.61
	ATR-MW14-G092816	9/28/16	1 U		2.0	0.02	1 U		1 U		1 U		2.3	0.04	0.06
	ATR-MW14-G020117	2/1/17	1 U		1.6	0.02	1 U		1 U		1 U		1.9	0.03	0.05
	ATR-MW14-G060717	6/7/17	1 U		1.5	0.02	1 U		1 U		1 U		1 U		0.02

Table 3 (continued)
Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone B	MTR-MW24(24.9)-6082213	7/22/13	1 U		1 U		1 U		2 U		1 U		1 U		0.00
	ATR-MW24 (24.9)-G100815	10/8/15	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW24(24.9)-G022916	2/29/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW24(24.8)-G061516	6/15/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW24(24.9)-G092816	9/28/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW24(24.9)-G013117	1/31/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW24(24.9)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
Zone B	ATR-MW24(55.4)-G030513	3/5/13	1 U		61	0.63	5.9	0.06	2 U		130	1.0	1.6	0.03	1.7
	ATR-MW24(55.4)-G050213	5/2/13	1 U		57	0.59	4.5	0.05	2 U		110	0.84	1 U		1.5
	ATR-MW24(55.4)-G050213R	5/2/13	1 U		64	0.66	5.5	0.06	2 U		110	0.84	1 U		1.6
	ATR-MW24 (55.9)-G100815	10/8/15	1 U		49	0.51	2.5	0.03	1 U		110	0.84	1.0	0.02	1.4
	ATR-MW24(55.9)-G022916	2/29/16	1 U		56	0.58	2.8	0.03	1 U		130	0.99	1.1	0.02	1.6
	ATR-MW24(55.4)-G061516	6/15/16	1 U		47	0.48	2.2	0.02	1 U		110	0.84	1 U		1.3
	ATR-MW24(55.4)-G092816	9/28/16	1 U		46	0.47	2.1	0.02	1 U		72	0.55	1 U		1.0
	ATR-MW24(55.4)-G013117	1/31/17	1 U		130	1.3	2.7	0.03	1 U		1.4	0.01	2.3	0.04	1.4
ATR-MW24(55.4)-G060717	6/7/17	1 U		54	0.56	5.3	0.05	1 U		1 U		92	1.47	2.1	
Zone B	ATR-OW2(33)-G121814	12/18/14	1 U		180	1.9	1 U		1 U		1 U		140	2.2	4.1
	ATR-OW2 (33)-G100815	10/8/15	5.3	0.05	2,000	21	9.2	0.09	5 U		5 U		1,600	26	46
	ATR-OW2(33)-G022916	2/29/16	1 U		320	3.3	1.9	0.02	1 U		1 U		520	8.3	11.6
	ATR-OW2(33)-G061516	6/15/16	7.1	0.07	2,300	24	11	0.11	5 U		5 U		1,600	25.6	50
	ATR-OW2(33)-G092716	9/27/16	1 U		54	0.56	1 U		1 U		1 U		120	1.9	2.5
	ATR-OW2(33)-G013117	1/31/17	1 U		5.2	0.05	1 U		1 U		1 U		18	0.29	0.34
	ATR-OW2(33)-G060617	6/6/17	1 U		1.7	0.02	1 U		1 U		1 U		2.2	0.04	0.05
Zone B	ATR-OW2(53)-G121814	12/18/14	1 U		1,100	11	7.3	0.08	1 U		1 U		1,500	24	35
	ATR-OW2 (53)-G100815	10/8/15	1 U		30	0.31	1 U		1 U		1 U		19	0.30	0.61
	ATR-OW2(53)-G022916	2/29/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW2(53)-G061616	6/16/16	5 U		5 U		5 U		5 U		5 U		5 U		0.00
	ATR-OW2(53)-G092716	9/27/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW2(53)-G013117	1/31/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW2(53)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00

Table 3 (continued)

Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone B	ATR-OW3(35)-G121614	12/16/14	1 U		300	3.1	1.7	0.02	1 U		8	0.06	94	1.5	4.7
	ATR-OW3 (35)-G100715	10/7/15	1 U		150	1.5	1.3	0.01	1 U		1 U		84	1.3	2.9
	ATR-OW3(35)-G022916	2/29/16	1 U		24	0.2	1 U		1 U		1 U		29	0.5	0.71
	ATR-OW3(35)-G061516	6/15/16	1 U		1 U		1 U		1 U		1 U		3.0	0.05	0.05
	ATR-OW3(35)-G092716	9/27/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW3(35)-G013117	1/31/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW3(35)-G060717	6/7/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
Zone B	ATR-OW3(55)-G121614	12/16/14	1 U		110	1.1	45	0.46	1 U		680	5.2	3.3	0.05	6.8
	ATR-OW3 (55)-G100715	10/7/15	1 UJ		55 J	0.57	9.1 J	0.09	1 U		430	3.3	1.0 J	0.02	3.9
	ATR-OW3 (55)-G100715 R	10/7/15	1.1 J	0.01	89 J	0.92	21 J	0.22	1 U		430	3.3	2.4 J	0.04	4.5
	ATR-OW3(55)-G022916	2/29/16	10 U		1,600 J	16.5	10 U		10 U		10 U		22	0.35	16.9
	ATR-OW3(55)-G022916 R	2/29/16	10 U		1,200 J	12.4	37	0.38	10 U		10 U		24	0.38	13.1
	ATR-OW3(55)-G061516	6/15/16	2 U		700	7.2	22	0.23	2 U		2 U		80	1.3	8.7
	ATR-OW3(55)-G092716	9/27/16	1 U		370	3.8	17	0.18	1 U		1 U		290	4.6	8.6
	ATR-OW3(55)-G013117	1/31/17	NA		NA		NA		NA		NA		NA		
ATR-OW3(55)-G060717	6/7/17	1 U		11	0.11	4.8	0.05	1 U		1 U		4.8 J	0.08	0.24	
Zone C	ATR-MW15-G041312	4/13/12	5 U		1,800	19	57	0.59	10 U		28	0.21	350	5.6	25
	ATR-MW15-G041312R	4/13/12	5 U		1,300	13	40	0.41	10 U		27	0.21	220	3.5	18
	ATR-MW15-G030613	3/6/13	15	0.15	2,800	29	71	0.73	10 U		200	1.5	380	6.1	37
	ATR-MW15-G050213	5/2/13	10 U		2,900	30	62	0.64	20 U		240	1.8	300	4.8	37
	ATR-MW15-G050213R	5/2/13	14	0.14	2,800	29	67	0.69	10 U		220	1.7	300	4.8	36
	ATR-MW15-6082213	7/22/13	11	0.11	2,100	22	58	0.60	10 U		160	1.2	190	3.0	27
	ATR-MW15-G101315	10/13/15	55	0.57	4,600	47	350	3.6	10 U		690	5.3	460	7.4	64
	ATR-MW15-G030116	3/1/16	24	0.25	4,500	46	130	1.3	20 U		20 U		360	5.8	54
	ATR-MW15-G061516	6/15/16	22 J	0.23	4,300 J	44	140 J	1.4	10 UJ		10 UJ		340 J	5.4	51
	ATR-MW15-G092716	9/27/16	15	0.15	3,700	38.2	140	1.44	5 U		5 U		1,200	19.2	59
	ATR-MW15-G013117	1/31/17	1 U		65	0.67	56	0.58	1 U		1 U		32	0.51	1.8
	ATR-MW15-G060617	6/6/17	1 U		4.2	0.04	24	0.25	1 U		1 U		8.8	0.14	0.43

Table 3 (continued)

Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone C	ATR-MW25(16.4)-G092712	9/27/12	5 U		1,800	19	5 U		10 U		5 U		630	10	29
	ATR-MW25(16.4)-G030613	3/6/13	5 U		2,600	27	15	0.15	10 U		5 U		560	9.0	36
	ATR-MW25(16.4)-G050213	5/2/13	10 U		2,500	26	10 U		20 U		10 U		520	8.3	34
	ATR-MW25(16.4)-G101315	10/13/15	14	0.14	3,600	37	38	0.39	10 U		10 U		670	11	48
	ATR-MW25(16.4)-G030116	3/1/16	2 U		480	5.0	2 U		2 U		2 U		320	5.1	10
	ATR-MW25(16.4)-G061516	6/15/16	1 U		49	0.51	1 U		1 U		1 U		16	0.26	0.76
	ATR-MW25(16.4)-G092716	9/27/16	1 U		6.4	0.1	1 U		1 U		1 U		6.0	0.1	0.16
	ATR-MW25(16.4)-G013117	1/31/17	1 U		25	0.26	1 U		1 U		1 U		11	0.18	0.43
	ATR-MW25(16.4)-G060617	6/6/17	1 U		2.9	0.03	1 U		1 U		1 U		3.1	0.05	0.08
ATR-MW25(16.4)-G060617R	6/6/17	1 U		3.1	0.03	1 U		1 U		1 U		3.2	0.05	0.08	
Zone C	ATR-MW25(32.6)-G041612	4/16/12	1.8	0.02	590	6.09	2.0	0.02	2 U		1 U		270	4.3	10
	ATR-MW25(32.6)-G030613	3/6/13	10 U		1,300	13	10.0 U		20 U		10 U		440	7.0	20
	ATR-MW25(32.6)-G050213	5/2/13	5 U		1,500	15	5.0 U		10 U		5 U		360	5.8	21
	ATR-MW25(32.6)-G061914	6/19/14	5 U		1,200	12	5.0 U		5 U		14 J	0.11	300 J	4.8	17
	ATR-MW25(32.6)-G101315	10/13/15	5 U		1,600	17	7.4	0.08	5 U		78	0.59	980	16	33
	ATR-MW25(32.6)-G030116	3/1/16	2 U		420	4.3	2.6	0.03	2 U		2 U		500	8.0	12
	ATR-MW25(32.6)-G061516	6/15/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW25(32.6)-G092716	9/27/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW25(32.6)-G013117	1/31/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW25(32.6)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
Zone C	MTR-MW25(45.2)-6082213	7/22/13	3.1	0.03	750	7.7	71	0.73	4 UJ		7.1	0.05	92	1.5	10
	ATR-MW25(45.2)-G101315	10/13/15	10 U		1,800	19	200	2.1	10 U		15	0.11	220	3.5	24
	ATR-MW25(45.2)-G030116	3/1/16	7.5	0.08	2,400	24.8	180	1.9	2 U		2 U		370	5.9	33
	ATR-MW25(45.2)-G061516	6/15/16	6.6	0.07	1,700	17.5	65	0.7	5 U		5 U		870	13.9	32
	ATR-MW25(45.2)-G092716	9/27/16	10 U		190	2.0	10 U		10 U		10 U		480	7.7	9.6
	ATR-MW25(45.2)-G013117	1/31/17	2 U		2 U		2 U		2 U		2 U		2 U		0.00
ATR-MW25(45.2)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 3 (continued)

Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone C	ATR-OW4(35)-G121614	12/16/14	1 U		210	2.2	1 U		1 U		2.4	0.02	540	8.6	11
	ATR-OW4(35)-G101315	10/13/15	5 U		170	1.8	5 U		5 U		5 U		230	3.7	5.4
	ATR-OW4(35)-G030116	3/1/16	5 U		760 J	7.8	7.6	0.08	5 U		5 U		480	7.7	16
	ATR-OW4(35)-G061516	6/15/16	5 U		290	3.0	5 U		5 U		5 U		930	14.9	18
	ATR-OW4(35)-G092716	9/27/16	1 U		53	0.5	3.0	0.03	1 U		1 U		240	3.8	4.4
	ATR-OW4(35)-G013117	1/31/17	1 U		17	0.2	3.2	0.03	1 U		1 U		66	1.1	1.3
	ATR-OW4(35)-G060717	6/7/17	1 U		1.9	0.02	1.3	0.01	1 U		1 U		5.2 J	0.08	0.12
Zone C	ATR-OW4(54)-G121614	12/16/14	1 U		2.5	0.03	1 U		1 U		1 U		1 U		0.03
	ATR-OW4(54)-G101315	10/13/15	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW4(54)-G030116	3/1/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW4(54)-G061516	6/15/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW4(54)-G092716	9/27/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW4(54)-G013117	1/31/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW4(54)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
Zone D	ATR-MW16-G092612	9/26/12	1 U		360	3.7	11	0.11	2 U		42	0.32	130	2.1	6.2
	ATR-MW16-G030613	3/6/13	1 U		370	3.8	12	0.12	2 U		27	0.21	260	4.2	8.3
	ATR-MW16-G030613R	3/6/13	1 U		340	3.5	12	0.12	2 U		27	0.21	210	3.4	7.2
	ATR-MW16-G040313	4/3/13	1 U		390	4.0	12	0.12	2 U		18	0.14	290	4.6	8.9
	ATR-MW16-G050213	5/2/13	1 U		410	4.2	13	0.13	2 U		19	0.14	200	3.2	7.7
	ATR-MW16-G100715	10/7/15	1.7	0.02	480	5.0	10	0.10	1 U		2.2	0.02	170	2.7	7.8
	ATR-MW16-G030116	3/1/16	2 U		630	6.5	10	0.10	2 U		2 U		250	4.0	11
	ATR-MW16-G061416	6/14/16	1 U		320	3.3	2.4	0.02	1 U		1 U		270	4.3	7.6
	ATR-MW16-G092616	9/26/16	1 U		100	1.0	1 U		1 U		1 U		200	3.2	4.2
	ATR-MW16-G013017	1/30/17	1 U		15	0.15	1 U		1 U		1 U		95	1.5	1.7
	ATR-MW16-G060617	6/6/17	1 U		4.0	0.04	1 U		1 U		1 U		44 J	0.70	0.75

Table 3 (continued)

Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	VOCs												Total Molar Mass
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	
Zone D	ATR-MW17-G092612	9/26/12	1 U		67	0.69	2.4	0.02	2 U		270	2.1	1 U		2.8
	ATR-MW17-G030613	3/6/13	1 U		56	0.58	1.9	0.02	2 U		200	1.5	1 U		2.1
	ATR-MW17-G030613R	3/6/13	1 U		58	0.60	1.9	0.02	2 U		220	1.7	1.7	0.03	2.3
	ATR-MW17-G040313	4/3/13	1 U		46	0.47	1.5	0.02	2 U		210	1.6	1 U		2.1
	ATR-MW17-G050213	5/2/13	1 U		51	0.53	1.8	0.02	2 U		190	1.4	1 U		2.0
	ATR-MW17-G100715	10/7/15	1 U		41	0.42	1.6	0.02	1 U		190 J	1.4	1 U		1.9
	ATR-MW17-G030116	3/1/16	1 U		44	0.45	1.7	0.02	1 U		190	1.4	1 U		1.9
	ATR-MW17-G061416	6/14/16	1 U		41	0.42	1.8	0.02	1 U		220	1.7	1 U		2.1
	ATR-MW17-G092616	9/26/16	1 U		36	0.37	1.5	0.02	1 U		170	1.3	1 U		1.7
	ATR-MW17-G013017	1/30/17	1 U		13	0.13	1 U		1 U		76	0.58	1 U		0.71
ATR-MW17-G060617	6/6/17	1 U		26	0.27	1 U		1 U		78	0.59	1 U		0.86	
Zone D	ATR-MW26(17.5)-G092712	9/27/12	2.8	0.03	770	7.9	12	0.12	2 U		4.1	0.03	380	6.1	14
	ATR-MW26(17.5)-G010813	1/8/13	5 U		1,200	12	15	0.15	10 U		5 U		500	8.0	21
	ATR-MW26(17.5)-G030613	3/6/13	5 U		1,200	12	14	0.14	10 U		5 U		430	6.9	19
	ATR-MW26(17.5)-G040313	4/3/13	5 U		1,200	12	12	0.12	10 U		5 U		650	10	23
	ATR-MW26(17.5)-G050313	5/3/13	5 U		880	9.1	11	0.11	10 U		5 U		530	8.5	18
	ATR-MW26 (17.5)-G100715	10/7/15	1 U		510	5.3	3.2	0.03	1 U		1 U		170	2.7	8.0
	ATR-MW26(17.5)-G030116	3/1/16	1 U		170	1.8	1 U		1 U		1 U		110	1.8	3.5
	ATR-MW26(17.5)-G061416	6/14/16	1 U		13	0.1	1 U		1 U		1 U		11	0.2	0.31
	ATR-MW26(17.5)-G092616	9/26/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW26(17.5)-G013017	1/30/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW26(17.5)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 3 (continued)

**Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana**

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone D	ATR-MW26(28.8)-G092712	9/27/12	1 U		45	0.46	2.2	0.02	2 U		22	0.17	13	0.21	0.86
	ATR-MW26(28.8)-G092712R	9/27/12	1 U		47	0.48	2.3	0.02	2 U		24	0.18	14	0.22	0.92
	ATR-MW26(28.8)-G010813	1/8/13	1.4	0.01	480	5.0	9.9	0.10	2 U		1 U		130	2.1	7.1
	ATR-MW26(28.8)-G030613	3/6/13	1.2	0.01	330	3.4	10	0.10	2 U		1 U		150	2.4	5.9
	ATR-MW26(28.8)-G040313	4/3/13	1.5	0.02	460	4.7	11	0.11	2 U		1.4	0.01	240	3.8	8.7
	ATR-MW26(28.8)-G050313	5/3/13	2.3	0.02	490	5.1	14	0.14	2 U		1.9	0.01	200	3.2	8.4
	ATR-MW26 (28.8)-G100715	10/7/15	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW26(28.8)-G030116	3/1/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW26(28.8)-G061416	6/14/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW26(28.8)-G092616	9/26/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW26(28.8)-G013017	1/30/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW26(28.8)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
Zone D	ATR-MW26(58.2)-G041612	4/16/12	1 U		2.2	0.02	1 U		2 U		1.8	0.01	1 U		0.04
	ATR-MW26(58.2)-G060413	6/4/13	1 U		2.4	0.02	1 U		2 U		1 U		1 U		0.02
	ATR-MW26 (58.8)-G100715	10/7/15	1 U		8.3	0.09	1 U		1 U		1 U		3.1	0.05	0.14
	ATR-MW26(58.8)-G030116	3/1/16	1 U		20	0.21	1.1	0.01	1 U		1 U		13	0.21	0.43
	ATR-MW26(58.2)-G061416	6/14/16	1 U		10	0.10	1.1	0.01	1 U		1 U		26	0.42	0.53
	ATR-MW26(58.2)-G092616	9/26/16	1 U		14	0.14	2.3	0.02	1 U		1 U		43	0.69	0.86
	ATR-MW26(58.8)-G013017	1/30/17	1 U		3.0	0.03	2.3	0.02	1 U		1 U		5.1	0.08	0.14
	ATR-MW26(58.8)-G013017R	1/30/17	1 U		3.0	0.03	2.3	0.02	1 U		1 U		5.3	0.08	0.14
ATR-MW26(58.2)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 3 (continued)

**Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana**

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone D	ATR-ZVI-2(17.5)-G121812	12/18/12	2.3	0.02	1,300	13.4	12	0.12	2 U		5.1	0.04	400	6.4	20
	ATR-ZVI-2(17.5)-G010813	1/8/13	5 U		1,200	12.4	12	0.12	10 U		5 U		480	7.7	20
	ATR-ZVI-2(17.5)-G030613	3/6/13	5 U		1,500	15.5	13	0.13	10 U		5 U		460	7.4	23
	ATR-ZVI-2(17.5)-G040313	4/3/13	5 U		1,500	15.5	11	0.11	10 U		5 U		450	7.2	23
	ATR-ZVI-2(17.5)-G050313	5/3/13	5 U		1,500	15.5	10	0.10	10 U		5 U		350	5.6	21
	ATR-ZVI2 (17.5)-G100715	10/7/15	1 U		320	3.3	2.9	0.03	1 U		1 U		250	4.0	7.3
	ATR-ZVI2(17.5)-G030216	3/2/16	1 U		1.6	0.02	1 U		1 U		1 U		9.1	0.15	0.16
	ATR-ZVI2(17.5)-G061416	6/14/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-ZVI2(17.5)-G092616	9/26/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-ZVI2(17.5)-G013117	1/31/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-ZVI2(17.5)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
Zone D	ATR-ZVI-2(32.5)-G121812	12/18/12	3.9	0.04	580	6.0	10	0.10	2 U		16	0.12	210	3.4	10
	ATR-ZVI-2(32.5)-G010813	1/8/13	4.2	0.04	670	6.9	13	0.13	2 U		3.2	0.02	280	4.5	12
	ATR-ZVI-2(32.5)-G030613	3/6/13	4.6	0.05	650	6.7	16	0.17	2 U		1 U		280	4.5	11
	ATR-ZVI-2(32.5)-G030613R	3/6/13	4.5	0.05	650	6.7	16	0.17	2 U		1 U		280	4.5	11
	ATR-ZVI-2(32.5)-G040313	4/3/13	3.6	0.04	710	7.3	14	0.14	2 U		1 U		410	6.6	14
	ATR-ZVI-2(32.5)-G040313R	4/3/13	3.5	0.04	710	7.3	14	0.14	2 U		1 U		410	6.6	14
	ATR-ZVI-2(32.5)-G050313	5/3/13	3.9	0.04	600	6.2	15	0.15	2 U		1 U		340	5.4	12
	ATR-ZVI2 (32.5)-G100715	10/7/15	2.2	0.02	320	3.3	2.8	0.03	1 U		1 U		130	2.1	5.4
	ATR-ZVI2(32.5)-G030116	3/1/16	1 U		160	1.7	1 U		1 U		1 U		140	2.2	3.9
	ATR-ZVI2(32.5)-G061416	6/14/16	1 U		30	0.3	1 U		1 U		1 U		65	1.0	1.3
	ATR-ZVI2(32.5)-G092616	9/26/16	1 U		5.9	0.06	1 U		1 U		1 U		51	0.82	0.88
	ATR-ZVI2(32.5)-G013117	1/31/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-ZVI2(32.5)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00

Table 3 (continued)

**Summary of Target VOC Concentrations and Molecular Mass
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana**

Treatment Area	Sample ID	Sample Date	VOCs												
			1,1-DCE (96.94)		cis-1,2-DCE (96.94)		trans-1,2-DCE (96.94)		PCE (165.83)		TCE (131.39)		Vinyl Chloride (62.5)		Total Molar Mass
			µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	µg/L	m/L*	m/L*
Zone D	ATR-OW5(16)-G121714	12/17/14	1 U		780	8.0	5.6	0.06	1 U		9.4	0.07	230	3.7	12
	ATR-OW5 (16)-G100715	10/7/15	2 U		720	7.4	6.1	0.06	2 U		2 U		190	3.0	11
	ATR-OW5(16)-G030116	3/1/16	1 U		350	3.6	3.1	0.03	1 U		1 U		250	4.0	7.6
	ATR-OW5(16)-G061416	6/14/16	1 U		230	2.4	1.2	0.01	1 U		1 U		47	0.75	3.1
	ATR-OW5(16)-G092716	9/27/16	1 U		48	0.5	1 U		1 U		1 U		49	0.78	1.3
	ATR-OW5(16)-G013017	1/30/17	1 U		1 U		1 U		1 U		1 U		2.2	0.04	0.04
	ATR-OW5(16)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1.6	0.03	0.03
Zone D	ATR-OW5(35)-G121714	12/17/14	1 U		1,200	12.4	15	0.15	1 U		330	2.5	43	0.69	16
	ATR-OW5 (35)-G100715	10/7/15	5.0	0.05	1,100	11.3	5.4	0.06	5 U		5 U		170	2.7	14
	ATR-OW5(35)-G030116	3/1/16	5 U		980	10.1	6.5	0.07	5 U		5 U		260	4.2	14
	ATR-OW5(35)-G061416	6/14/16	1 U		32	0.3	2.1	0.02	1 U		1 U		170 J	2.7	3.1
	ATR-OW5(35)-G092616	9/26/16	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW5(35)-G013017	1/30/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-OW5(35)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
Zone D	ATR-OW5(44)-G121714	12/17/14	1 U		220	2.3	6.1	0.06	1 U		5.5	0.04	580	9.3	12
	ATR-OW5 (54)-G100715	10/7/15	7.0	0.07	2,000	20.6	14	0.14	5 U		5 U		300	4.8	26
	ATR-OW5(54)-G030116	3/1/16	6.6	0.07	1,900	19.6	8.2	0.08	5 U		5 U		700	11	31
	ATR-OW5(45)-G061416	6/14/16	5 U		1,000	10.3	5 U		5 U		5 U		670	11	21
	ATR-OW5(45)-G092616	9/26/16	1 U		180	1.9	1.1	0.01	1 U		1 U		140	2.2	4.1
	ATR-OW5(45)-G013017	1/30/17	1 U		2.3	0.02	1 U		1 U		1 U		3.3	0.05	0.08
	ATR-OW5(44)-G060617	6/6/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00

Notes:

J - Estimated concentration, analyte detected below quantitation limit

U - Analyzed but not detected above the MDL

(96.94) - Compound molecular weight in grams per mole

m/L* - micromole per liter

µg/L - micrograms per liter

Green text is baseline data

Blue text is performance monitoring data

NA - Not Analyzed

Prepared by: RLB

Checked by: PJS

Table 4
Summary of Dechlorinating Bacteria, Functional Genes, Dissolved Gases, and Volatile Fatty Acid Results
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Dechlorinating Bacteria & Functional Genes				Dissolved Gases			Volatile Fatty Acids										
			DHC	tceA Reductase	bvcA Reductase	VC Reductase	Methane	Ethane	Ethene	Lactic Acid	Acetic Acid	Propionic Acid	Formic Acid	Butyric Acid	Pyruvic Acid	i-Pentanoic Acid	Pentanoic Acid	i-Hexanoic Acid	Hexanoic Acid	
			cells/mL	cells/mL	cells/mL	cells/mL	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Source - Behind	ATR-MW81(27)-G110512	11/5/12	2.10E+00 J	< 1.70E+00	6.00E-01 J	< 1.70E+00	11,000	170	550	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	ATR-MW81(27)-G020413	2/4/13	NA	NA	NA	NA	NA	NA	NA	0.10 U	2.4	6.9	0.44	4.9	0.16	0.071 J	0.24	0.050 U	0.10 U	
	ATR-MW81(27)-G030613	3/6/13	7.17E+03*	< 4.30E+00*	5.14E+03*	8.98E+01*	11,000	220	640	0.20	0.80	1.2	0.12	0.89	0.066 J	0.027 J	0.12	0.050 U	0.10 U	
	ATR-MW81(27)-G050313	5/3/13	NA	NA	NA	NA	11,000	230	760	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW81(27)-G082715	8/27/15	2.54E+05	< 1.00E+00	9.78E+04	4.74E+03	8,500	150	520	0.38 J	270	93	3.1 J	150	0.59 J	0.58 J	3.5	0.29	1.4	
	ATR-MW81(27)-G022316	2/23/16	2.53E+04	< 1.2E+00	8.03E+03	6.98E+02	19,000	850	1,300	2.0 U	410	64	0.44 J	38	17	1.8	13	0.067 J	6.0	
	ATR-MW81(27)-G061616	6/16/16	NA	NA	NA	NA	20,000	310	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW81(27)-G092916	9/29/16	NA	NA	NA	NA	21,000	280	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW81(27)-G121316	12/13/16	1.10E+05	< 5.00E-01	2.76E+04	7.68E+03	26,000	350	1,100	20 U	200	3.9	3.3	28	1.3	0.60 J	0.58 J	0.17 J	7.8	
	ATR-MW81(27)-G060717	6/7/17	1.82E+04	5.00E-01 J	2.91E+03	2.07E+03	22,000	320	2,100	2 U	290	5.5 J	5.4	30	3.2	0.76 J	1.4	0.94	9.4	
	MTR-MW59(29)-G092712	9/27/12	3.18E+04	< 5.00E-01	2.17E+02	3.07E+04	11,000	240	1,600	0.022 J	0.021 J	0.050 U	0.083 J	0.050 U	0.15 U	0.15 U	0.070 U	0.050 U	0.050 U	
	MTR-MW59(29)-G092712R	9/27/12	1.52E+05*	2.30E+00 J*	1.66E+03*	1.48E+05*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MTR-MW59(29)-G020413	2/4/13	NA	NA	NA	NA	NA	NA	NA	2.8	160	190	6.7 J	240	6.0	3.0	6.4	0.05 U	4.9	
	MTR-MW59(29)-G030613	3/6/13	2.28E+05*	< 3.60E+00*	1.68E+05*	1.20E+03*	14,000	280	9,600	1.0 U	86	97	2.5 J	120	3.9	2.2	3.9	0.05 U	2.5	
	MTR-MW59(29)-G050313	5/3/13	NA	NA	NA	NA	13,000	250	4,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G082715	8/27/15	2.46E+05	< 5.00E-01	1.15E+05	7.08E+04	18,000	400	4,300	0.26 J	98	110	0.53 J	24	0.31 J	0.085 J	0.5	0.2 U	0.5 U	
	ATR-MW59(29)-G022316	2/23/16	7.49E+05	< 5.00E-01	1.33E+05	2.51E+05	21,000	420	13,000	20 U	400	72	0.15 J	37	14	1.4	14	0.16 J	7.5	
	ATR-MW59(29)-G061716	6/17/16	NA	NA	NA	NA	24,000	170	13,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G061716R	6/17/16	NA	NA	NA	NA	19,000	140	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G093016	9/30/16	NA	NA	NA	NA	16,000	130	7,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G093016R	9/30/16	NA	NA	NA	NA	18,000	140	8,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G121316	12/13/16	6.20E+04	< 5.00E-01	4.34E+03	8.82E+03	24,000	240	6,200	20 U	260	9.5 J	4.1	32	0.95 J	0.45 J	1.6	0.11 J	5.0	
	ATR-MW59(29)-G121316R	12/13/16	8.48E+04	< 5.00E-01	7.16E+03	1.39E+04	24,000	230	6,200	20 U	260	9.6 J	4.1	33	0.88 J	0.42 J	1.7	0.11 J	5.1	
	ATR-MW59(29)-G060717	6/7/17	3.47E+03	< 5.00E-01	3.09E+02	1.13E+03	23,000	260	1,800	2 U	110	2.9	2.2	4.4	0.34 J	0.33	0.23	0.2 U	0.33	
	ATR-MW59(29)-G060717R	6/7/17	4.58E+03	< 5.00E-01	5.98E+02	2.05E+03	23,000	260	1,600	2 U	110	2.8	2.2	4.5	0.34 J	0.33	0.24	0.2 U	0.37	
	ATR-PM2-G110512	11/5/12	4.66E+01	< 2.50E+00	5.50E+00	2.90E+00	10,000	180	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM2-G020413	2/4/13	NA	NA	NA	NA	NA	NA	NA	0.10 U	0.58	0.56	0.032 J	0.21	0.15 U	0.15 U	0.070 U	0.050 U	0.10 U	
	ATR-PM2-G030613	3/6/13	4.12E+03*	< 4.00E-01*	2.71E+03*	1.18E+02*	10,000	160	840	0.050 J	0.15	0.10	0.035 J	0.059	0.15 U	0.15 U	0.070 U	0.050 U	0.10 U	
	ATR-PM2-G050313	5/3/13	NA	NA	NA	NA	7,800	120	620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM2-G082715	8/27/15	8.92E+05	< 5.00E-01	5.71E+05	2.84E+05	15,000	300	2,900	0.11	39	19	0.25	1.3	0.2	0.056 J	0.15	0.2 U	0.5 U	
	ATR-PM2-G022316	2/23/16	5.82E+05	< 5.00E-01	3.60E+04	1.93E+05	21,000	350	8,200	2.0 U	77	28	0.15	3.6	2.6	0.37	1.9	0.028 J	0.26	
	ATR-PM2-G061616	6/16/16	NA	NA	NA	NA	22,000	280	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM2-G092916	9/29/16	NA	NA	NA	NA	21,000	360	7,800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-PM2-G121316	12/13/16	1.71E+04	< 5.00E-01	1.22E+02	3.33E+03	21,000	460	6,500	0.0087 J	2.3	0.017 J	0.050 J	0.0075 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U		
ATR-PM2-G060717	6/7/17	6.49E+04	< 5.00E-01	5.49E+02	3.64E+04	21,000	550	3,700	0.2 U	8.7	1.6	0.13 J	0.1	0.2 J	0.052 J	0.078 J	0.2 U	0.2 U		
ATR-PM3-G110512	11/5/12	3.60E+00	< 1.40E+00	1.00E+00 J	< 1.40E+00	11,000	260	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-PM3-G020413	2/4/13	NA	NA	NA	NA	NA	NA	NA	0.056 J	0.12	0.13	0.070 J	0.042 J	0.15 U	0.15 U	0.070 U	U	0.10 U		
ATR-PM3-G030513	3/5/13	3.58E+03*	< 9.00E-01*	1.95E+03*	7.81E+02*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-PM3-G050313	5/3/13	NA	NA	NA	NA	10,000	260	680	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-PM3-G082715	8/27/15	1.06E+04	< 1.85E+01	5.91E+03	7.24E+02	4,000	23	800	360	260	53	31	180	23	1.5 U	0.72	0.2 U	0.75		
ATR-PM3-G022316	2/23/16	9.44E+02	9.00E-01 J	1.63E+02	5.05E+01	13,000	270	5,100	20 U	550	33	0.84 J	78 J	4.1 J	10 U	6.8 J	0.31	21		
ATR-PM3-G061716	6/17/16	NA	NA	NA	NA	17,000	170	4,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-PM3-G092916	9/29/16	NA	NA	NA	NA	17,000	180	4,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-PM3-G121316	12/13/16	1.42E+02	< 2.94E+01	5.82E+01	< 2.94E+01	730	34	190	27 J	640	35 J	38 J	2,300	100 U	100 U	5.8 J	20 U	21		
ATR-PM3-G060717	6/7/17	< 3.20E+00	< 3.20E+00	< 3.20E+00	< 3.20E+00	19,000	240	5,300	20 U	840	120	14 J	150	50	4.1	33	0.9	36		

Table 4 (continued)
Summary of Dechlorinating Bacteria, Functional Genes, Dissolved Gases, and Volatile Fatty Acid Results
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Dechlorinating Bacteria & Functional Genes				Dissolved Gases			Volatile Fatty Acids									
			DHC	tceA Reductase	bvcA Reductase	VC Reductase	Methane	Ethane	Ethene	Lactic Acid	Acetic Acid	Propionic Acid	Formic Acid	Butyric Acid	Pyruvic Acid	i-Pentanoic Acid	Pentanoic Acid	i-Hexanoic Acid	Hexanoic Acid
			cells/mL	cells/mL	cells/mL	cells/mL	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Source - Inside	ATR-MW67(30)-G110712	11/7/12	< 1.43E+01	< 1.43E+01	< 1.43E+01	< 1.43E+01	1,700	75	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW67-G031516	3/15/16	6.10E+01	< 1.70E+00	1.87E+01	1.1E+00 J	1,700	140	1,100	0.017 J	1.1	0.15	0.024 J	0.015 J	0.032 J	0.1 U	0.1 U	0.2 J	0.2 U
	ATR-MW67-G062016	6/20/16	NA	NA	NA	NA	3,000	130	3,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW67-G092916	9/29/16	NA	NA	NA	NA	3,800	170	4,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW67-G121216	12/12/16	1.94E+02	< 1.90E+00	2.81E+01	1.35E+01	6,100	180	3,900	2 U	180	2.3	1.3	4.1	0.25 J	0.26 J	0.12 J	2 U	0.31 J
	ATR-MW67-G060817	6/8/17	9.56E+04	< 1.60E+00	2.07E+04	1.45E+05	7,000	68	1,500	2 U	460	4.5	1.8 J	27	0.81 J	0.64 J	0.37 J	0.15 J	4.2
	ATR-MW68-G031516	3/15/16	3.72E+05	< 1.00E+00	4.38E+04	1.68E+05	2,200	110	3,700	59	120	80	0.085 J	210	1.6	0.1 U	0.93	0.061 J	0.2 J
	ATR-MW68-G061716	6/17/16	NA	NA	NA	NA	5,000	96	6,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW68-G092916	9/29/16	NA	NA	NA	NA	11,000	80	6,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW68-G121316	12/13/16	9.10E+04	< 9.40E+00	1.19E+03	6.29E+03	11,000	52	9,900	20 U	210	28	3.1	19	6.5	0.70 J	5.3	0.075 J	3.1
	ATR-MW68-G060817	6/8/17	4.80E+04	< 1.80E+00	1.19E+04	1.63E+05	6,500	17	3,400	2 U	580	77	9.9	60	12	2.5	10	0.69	11
	ATR-MW71-G031516	3/15/16	7.34E+05	1.30E+00	1.68E+05	2.47E+05	18,000	180	13,000	13 J	92	44	2.2	12	8.5	1.0 U	6.8	0.18 J	1.9
	ATR-MW71-G062016	6/20/16	NA	NA	NA	NA	9,100	66	6,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW71-G092916	9/29/16	NA	NA	NA	NA	9,400	70	5,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW71-G121216	12/12/16	5.19E+05	< 1.90E+00	7.58E+04	8.92E+04	3,300	33	1,700	200 U	740	430	58	410	63	3.8 J	120	0.66 J	160
	ATR-MW71-G060817	6/8/17	1.20E+04	< 1.70E+00	6.22E+03	3.81E+04	7,600	110	550	20 U	380	210	20	270	40	3.6	38	0.8	71
	ATR-MW72(32)-G030613	3/6/13	3.29E+01*	< 6.30E+00*	2.17E+01*	< 6.30E+00*	6,100	130	770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW72-G031516	3/15/16	2.92E+05	2.00E-01 J	5.49E+04	1.61E+05	9,100	140	26,000	54	160	77	1.0 U	100	7.5	0.76 J	5.1	0.38	1.8
	ATR-MW72-G062016	6/20/16	NA	NA	NA	NA	6,600	81	790	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW72-G092916	9/29/16	NA	NA	NA	NA	7,900	60	8,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW72-G121316	12/13/16	4.12E+03	< 2.38E+01	3.52E+01	8.91E+01	6,500	42	4,700	20 U	380	150	5.0	69	8.5	0.97 J	26	0.090 J	18
	ATR-MW72-G060817	6/8/17	8.66E+04	< 1.90E+00	2.40E+04	1.53E+05	8,500	9.9	690	2 U	390	240	17	110	17	3.3	42	0.55	28
	ATR-MW76-G031516	3/15/16	5.40E+01	1.28E+01	3.40E+00	1.5E+00 J	1,700	41	150	1 J	38	12	0.088 J	1.3	0.064 J	0.1 J	0.02 J	0.2 U	0.024 J
	ATR-MW76-G062016	6/20/16	NA	NA	NA	NA	2,700	87	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW76-G092916	9/29/16	NA	NA	NA	NA	6,000	110	2,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW76-G121416	12/14/16	5.68E+02	< 1.90E+00	1.29E+02	2.03E+01	4,300	56	2,500	20 U	310	40	18	140	1.7	0.46 J	1.8	0.063 J	3.9
	ATR-MW76-G060817	6/8/17	1.07E+03	< 5.00E-01	3.87E+02	1.19E+02	12,000	91	5,800	2 U	800	53	14	110	15	3.2	12	0.61	31
	ATR-MW77-G031516	3/15/16	1.88E+03	8.00E-01	1.34E+02	3.75E+02	2,100	13	33	0.027 J	0.078 J	0.1 U	0.016 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW77-G062016	6/20/16	NA	NA	NA	NA	6,900	18	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW77-G092916	9/29/16	NA	NA	NA	NA	4,200	19	6.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-MW77-G121416	12/14/16	4.38E+03	5.00E-01 J	1.54E+02	4.92E+02	7,400	21	310	2 U	18	19	1.2	5.2	0.28 J	1 U	3.2	2 U	3.5	
ATR-MW77-G060817	6/8/17	2.31E+03	5.99E+01	4.67E+01	1.87E+03	5,400	41	210	0.2 U	28	19	1.5 J	4.6	5.3	1 U	4.5	0.2 U	3.3	
ATR-MW78-G031516	3/15/16	6.18E+02	5.30E+00	8.80E+00	7.99E+01	5,400	30	850	45.000	150	12	0.11 J	0.84	0.17	0.48	0.1	0.2 U	0.067 J	
ATR-MW78-G062016	6/20/16	NA	NA	NA	NA	18,000	170	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW78-G092916	9/29/16	NA	NA	NA	NA	22,000	38	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW78-G121416	12/14/16	3.64E+02	< 1.30E+00	5.80E+00	2.29E+01	26,000	9.1	0.11	20 U	380	1.9 J	1.4	11	0.16 J	0.30 J	1 U	2 U	0.78 J	
ATR-MW78-G060817	6/8/17	7.77E+01	< 5.00E-01	2.30E+00	9.08E+01	23,000	1.8	0.1 U	0.12 J	270	2	0.56 J	7	0.2 J	0.28	0.09 J	0.2 U	0.52	
Zone A	MTR-MW6C-G030513	3/5/13	2.40E+01*	< 5.00E-01*	2.36E+01*	< 5.00E-01*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G082615	8/26/15	5.67E+04	2.66E+01	2.47E+04	9.77E+03	1,500	18	39	0.1 U	3.2	3.5	0.049 J	0.043 J	0.015 J	0.015 J	0.07 U	0.2 U	0.5 U
	ATR-MW6C-G022316	2/23/16	2.52E+05	5.17E+01	1.21E+04	1.02E+05	4,800	30	39	0.017 J	0.57	0.0041 J	0.028 J	0.006 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW6C-G061616	6/16/16	NA	NA	NA	NA	11,000	81	68	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G092816	9/28/16	NA	NA	NA	NA	17,000	270	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G020117	2/1/17	5.12E+04	1.24E+02	4.23E+03	1.39E+04	20,000	220	250	0.0069 J	4.9	0.056 J	0.12	0.13	0.1 U	0.0098 J	0.1 U	0.2 U	0.0096 J
	ATR-MW6C-G060717	6/7/17	8.33E+03	2.21E+02	6.29E+02	6.37E+03	21,000	55	95	0.2 U	0.28	0.1 U	0.047 J	0.0057 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U

Table 4 (continued)
Summary of Dechlorinating Bacteria, Functional Genes, Dissolved Gases, and Volatile Fatty Acid Results
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Dechlorinating Bacteria & Functional Genes				Dissolved Gases			Volatile Fatty Acids									
			DHC	tceA Reductase	bvcA Reductase	VC Reductase	Methane	Ethane	Ethene	Lactic Acid	Acetic Acid	Propionic Acid	Formic Acid	Butyric Acid	Pyruvic Acid	i-Pentanoic Acid	Pentanoic Acid	i-Hexanoic Acid	Hexanoic Acid
			cells/mL	cells/mL	cells/mL	cells/mL	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone A	ATR-MW12-G082615	8/26/15	5.42E+02	< 2.50E+00	1.62E+01	1.64E+01	1,400	19	520	0.35 J	48	27	0.35	4	0.28	0.19	0.094	0.2 U	0.5 U
	ATR-MW12-G022416	2/24/16	2.60E+06	< 6.00E-01	7.01E+05	4.93E+05	13,000	15	880	0.038 J	130	1.2	0.081 J	3.4	0.2	0.28	0.043 J	0.2 U	0.37
	ATR-MW12-G061616	6/16/16	NA	NA	NA	NA	18,000	37	1,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW12-G092816	9/28/16	NA	NA	NA	NA	19,000	110	410	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW12-G020117	2/1/17	1.09E+06	< 1.80E+00	1.00E+05	1.92E+05	15,000	66	230	2 U	210	1.2 J	1.2	8.2	0.22	0.32	0.072 J	0.013 J	0.67
	ATR-MW12-G060717	6/7/17	1.34E+04	< 1.30E+00	7.25E+03	7.05E+04	17,000	19	2.1	2 U	97	1.3	0.51 J	1.2	1 U	0.22	0.037 J	0.2 U	0.034 J
	MTR-MW13-G092712	9/27/12	5.66E+02*	< 6.80E+00*	8.30E+00*	2.46E+02*	1,600	30	21	0.032 J	1.9	0.050 U	0.050 J	0.050 U	0.15 U	0.15 U	0.070 U	0.050 U	0.050 U
	ATR-MW13-G082615	8/26/15	1.32E+06	3.90E+00	4.41E+05	1.87E+05	850	28	220	1	46	49	0.18	0.32	0.39	0.054 J	0.07 U	0.2 U	0.5 U
	ATR-MW13-G030216	3/2/16	8.64E+05	< 1.10E+00	2.47E+05	1.61E+05	11,000	26	2,100	0.29 J	150	2.7	0.12 J	0.84 J	0.17 J	0.31 J	1 U	2 U	2 U
	ATR-MW13-G061616	6/16/16	NA	NA	NA	NA	18,000	130	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW13-G092816	9/28/16	NA	NA	NA	NA	20,000	310	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW13-G020117	2/1/17	9.15E+05	< 1.70E+00	4.61E+04	2.61E+05	16,000	180	360	0.030 J	0.39	0.014 J	0.11	0.0094 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW13-G060717	6/7/17	2.12E+05	2.20E+00	5.50E+03	1.91E+05	11,000	45	90	0.036 J	0.55	0.1 U	0.2 U	0.0083 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW62-G082715	8/27/15	4.93E+04	2.86E+02	1.82E+04	9.99E+03	2,000	60	420	0.51	21	3.8	0.2	2.4	0.042 J	0.15 U	0.047 J	0.2 U	0.5 U
	ATR-MW62-G022316	2/23/16	3.46E+05	6.18E+02	1.21E+04	8.65E+04	17,000	200	4,700	2.0 U	220	1.6	0.14 J	19	0.33	0.25	0.11	0.011 J	2.7
	ATR-MW62(36)-G061616	6/16/16	NA	NA	NA	NA	17,000	140	3,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW62-G092916	9/29/16	NA	NA	NA	NA	17,000	250	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW62-G020117	2/1/17	8.77E+04	1.63E+02	1.20E+03	1.86E+04	24,000	67	1,400	2 U	310	2.6 J	1.4	32	0.36	0.36	0.31	0.050 J	5.6
	ATR-MW62(36)-G060717	6/7/17	4.90E+03	1.10E+02	3.11E+01	3.06E+03	20,000	87	160	2 U	63	0.48 J	0.24	4	0.063 J	0.087 J	0.04 J	0.2 U	0.68
	ATR-MW20(35)-G082715	8/27/15	7.82E+03	2.08E+02	5.36E+03	6.76E+01	1,900	30	110	0.028 J	13	1.1	0.1	0.08	0.028 J	0.072 J	0.023 J	0.2 U	0.5 U
	ATR-MW20(35)-G082715R	8/27/15	9.06E+03	2.40E+02	6.69E+03	8.04E+01	2,000	31	120	0.053 J	12	0.86	0.11	0.056	0.029 J	0.073 J	0.022 J	0.2 U	0.5 U
	ATR-MW20(35)-G022316	2/23/16	5.13E+04	3.01E+02	1.67E+02	1.51E+04	22,000	50	210	20 U	270	2.2	0.077 J	0.85 J	0.19	0.22	0.1 U	0.022 J	0.011 J
	ATR-MW20(35)-G022316R	2/23/16	8.82E+04	3.80E+02	3.43E+02	2.85E+04	22,000	51	220	0.03 J	250	2	0.1 J	0.85 J	0.085 J	0.13	0.1 U	0.02 J	0.011 J
	ATR-MW20(35)-G061616	6/16/16	NA	NA	NA	NA	18,000	130	320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(35)-G061616R	6/16/16	NA	NA	NA	NA	18,000	130	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(35)-G092816	9/28/16	NA	NA	NA	NA	16,000	500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(35)-G092816R	9/28/16	NA	NA	NA	NA	17,000	510	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(35)-G020117	2/1/17	1.58E+04	9.49E+01	4.28E+02	1.42E+03	24,000	240	60	0.77	96	1.0	0.66	2.4	0.076 J	0.12	0.023 J	0.018 J	0.086 J
	ATR-MW20(35)-G020117R	2/1/17	NA	NA	NA	NA	22,000	220	54	2 U	96	0.99 J	0.63	2.3	0.074 J	0.12	0.020 J	0.018 J	0.076 J
	ATR-MW20(35)-G060717	6/7/17	2.58E+03	3.20E+02	1.85E+02	2.74E+03	21,000	110	0.079 J	0.021 J	0.3	0.012 J	0.061 J	0.007 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW20(35)-G060717R	6/7/17	2.18E+03	1.48E+02	1.08E+02	1.52E+03	21,000	120	0.095 J	0.2 U	0.26	0.0086 J	0.045 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW20(51)-G082715	8/27/15	1.05E+02	< 1.90E+00	1.78E+01	2.80E+00	1,500	44	270	4.3	600	470	3.2 J	64	2.6	1.5	0.39 J	0.2 U	0.48 J
	ATR-MW20(51)-G022316	2/23/16	1.82E+04	3.00E-01 J	3.27E+02	3.38E+03	31,000	21	0.54	20 U	460	12	0.23 J	25	1.5	0.92 J	2.4	0.16 J	4.1
	ATR-MW20(51)-G061616	6/16/16	NA	NA	NA	NA	23,000	7.5	0.078	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(51)-G092816	9/28/16	NA	NA	NA	NA	23,000	19	0.022 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(51)-G020117	2/1/17	1.16E+03	< 5.00E-01	2.98E+01	1.21E+02	21,000	110	0.079 J	0.021 J	0.3	0.012 J	0.061 J	0.007 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW20(51)-G060717	6/7/17	3.72E+02	< 5.00E-01	4.90E+00	3.04E+02	25,000	120	0.025 J	0.2 U	0.37	0.0096 J	0.057 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW82-G082615	8/26/15	5.85E+03	< 3.30E+00	1.63E+02	8.77E+01	1,400	1.4	26	160	670	520	4.5 J	270	5.9	1.6	3.1	0.25	0.5 U
	ATR-MW82-G022316	2/23/16	1.12E+06	2.00E-01 J	2.89E+03	3.76E+05	24,000	22	140	20 U	590	47 J	0.5 J	20	4.0	1.7	4.1	0.11 J	1.4
	ATR-MW82-G061616	6/16/16	NA	NA	NA	NA	25,000	81	0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-MW82-G092816	9/28/16	NA	NA	NA	NA	27,000	34	0.024 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW82-G020117	2/1/17	1.28E+03	2.00E-01 J	1.35E+01	1.08E+02	34,000	33	0.015 J	2 U	170	240	2.0	2.6	3.2	1.3	4.0	0.21	0.10 J	
ATR-MW82-G060717	6/7/17	1.38E+02	< 5.00E-01	4.00E-01 J	4.42E+01	28,000	40	0.1 U	0.2 U	0.065 J	0.1 U	0.084 J	0.0072 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	

Table 4 (continued)
Summary of Dechlorinating Bacteria, Functional Genes, Dissolved Gases, and Volatile Fatty Acid Results
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Dechlorinating Bacteria & Functional Genes				Dissolved Gases			Volatile Fatty Acids									
			DHC	tceA Reductase	bvcA Reductase	VC Reductase	Methane	Ethane	Ethene	Lactic Acid	Acetic Acid	Propionic Acid	Formic Acid	Butyric Acid	Pyruvic Acid	i-Pentanoic Acid	Pentanoic Acid	i-Hexanoic Acid	Hexanoic Acid
			cells/mL	cells/mL	cells/mL	cells/mL	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone A	ATR-OW1S-G082715	8/27/15	3.56E+05	< 5.00E-01	6.74E+03	1.48E+05	2,800	18	83	0.1 U	2.2	0.04 J	0.047 J	0.089	0.15 U	0.15 U	0.07 U	0.2 U	0.5 U
	ATR-OW1(28)-G022416	2/24/16	1.05E+05	< 5.00E-01	9.51E+03	3.72E+04	7,600	39	360	0.02 J	0.78	0.0096 J	0.024 J	0.014 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-OU1(28)-G061616	6/16/16	NA	NA	NA	NA	14,000	58	320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW1(28)-G092816	9/28/16	NA	NA	NA	NA	12,000	67	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW1(28)-G013117	1/31/17	1.22E+04	< 8.00E-01	1.53E+02	1.86E+03	12,000	230	220	0.011 J	3.2	0.64	0.078 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-OW1(28)-G060717	6/7/17	4.04E+03	1.00E-01 J	4.26E+01	3.93E+03	16,000	140	170	0.2 U	7.1	0.1 U	0.055 J	0.0059 J	0.013 J	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-OW1D-G082715	8/27/15	1.22E+06	< 5.00E-01	6.04E+05	3.44E+05	1,400	5.1	150	1 U	280	460	2.1	26	1.6	0.5 J	0.85	0.2 U	0.21 J
	ATR-OW1(39)-G022916	2/29/16	2.28E+04	3.00E-01 J	4.22E+03	2.51E+03	23,000	95	1.8	0.05 J	10	28	0.17	0.49	0.55	0.13	0.57	0.2 U	0.035 J
	ATR-OU1(39)-G061616	6/16/16	NA	NA	NA	NA	20,000	160	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW1(39)-G092816	9/28/16	NA	NA	NA	NA	10,000	210	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW1(39)-G020117	2/1/17	2.34E+03	< 8.00E-01	4.89E+02	9.48E+01	25,000	120	0.0045 J	0.015 J	0.16	0.056 J	0.056 J	0.017 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-OW1(39)-G060717	6/7/17	4.94E+02	< 5.00E-01	8.23E+01	1.59E+02	12,000	170	0.1 U	0.02 J	0.045 J	0.1 U	0.04 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
Zone B	MTR-MW14-G092712	9/27/12	1.08E+01	1.19E+01	< 5.00E-01	< 5.00E-01	62	0.31	0.18	0.10 U	0.070 U	0.050 U	0.10 U	0.050 U	0.15 U	0.15 U	0.070 U	0.050 U	0.050 U
	ATR-MW14-G100815	10/8/15	4.18E+02	3.00E-1 J	< 5.00E-01	5.00E+00	43	0.2	0.09 J	1.8	9.4	14	0.79	0.18	0.26	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW14-G022916	2/29/16	1.98E+06	1.58E+04	1.80E+00	4.45E+05	440	0.94	120	2.0 U	130	210	1.4	4.9 J	1.7	0.39 J	1.7	0.013 J	0.049 J
	ATR-MW14-G061516	6/15/16	NA	NA	NA	NA	3,800	1.1	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW14-G092816	9/28/16	NA	NA	NA	NA	6,400	10	950	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW14-G020117	2/1/17	2.26E+05	2.39E+02	1.95E+02	3.37E+04	13,000	31	680	0.38 J	250	16	1.7	3.2	1.1	0.43	0.53	0.0043 J	0.052 J
	ATR-MW14-G060717	6/7/17	1.28E+05	2.62E+02	9.71E+01	4.06E+04	10,000	200	290	2 U	48	0.34 J	0.15 J	0.1	0.041 J	0.077 J	0.027 J	0.2 U	0.2 U
	ATR-MW24 (24.9)-G100815	10/8/15	4.30E+02	< 5.00E-01	< 5.00E-01	< 5.00E-01	1.4	0.0039	0.0074	0.021 J	0.034 J	0.1 U	0.019 J	0.017 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW24 (24.9)-G022916	2/29/16	1.12E+02	3.00E-01 J	<5.00E-01	2.70E+00	7.0	0.0093 J	0.014 J	0.014 J	0.08 J	0.02 J	0.16	0.056 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW24(24.9)-G061516	6/15/16	NA	NA	NA	NA	13	0.0069	0.0083	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24(24.9)-G092816	9/28/16	NA	NA	NA	NA	180	0.0093 J	0.016 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24(24.9)-G013117	1/31/17	1.06E+02	4.00E-01 J	2.00E-01 J	4.00E-01 J	200	0.023 J	0.031 J	0.013 J	0.41	0.068 J	0.090 J	0.012 J	0.1 U	0.1 U	0.1 U	0.2 U	0.012 J
	ATR-MW24(24.9)-G060617	6/6/17	9.90E+00	9.00E-01	5.00E-01 J	1.80E+00	250	0.027 J	0.035 J	0.2 U	0.044 J	0.0063 J	0.037 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW24 (55.9)-G100815	10/8/15	7.20E+02	4.00E-01 J	1.87E+01	< 5.00E-01	27	0.19	0.1	0.025 J	0.03 J	0.1 U	0.031 J	0.014 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW24 (55.9)-G022916	2/29/16	9.32E+02	9.30E+00	5.10E+02	1.00E-01 J	25	0.19	0.076 J	0.013 J	0.025 J	0.0029 J	0.037 J	0.0074 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW24(55.4)-G061516	6/15/16	NA	NA	NA	NA	19	0.15	0.089	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24(55.4)-G092816	9/28/16	NA	NA	NA	NA	22	0.17	0.086 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24(55.4)-G013117	1/31/17	1.27E+03	1.61E+01	1.00E+02	1.90E+00	83	2.1	1.0	0.14 J	160	150	0.62 J	2.4	0.37	0.091 J	0.074 J	0.2 U	0.2 U
	ATR-MW24(55.4)-G060717	6/7/17	5.61E+05	8.65E+04	1.73E+04	1.62E+05	11,000	24	87	2 U	59	91	0.35 J	0.31 J	0.63 J	0.42	0.28	0.2 U	0.056 J
	ATR-OW2 (33)-G100815	10/8/15	1.72E+06	< 5.00E-01	1.76E+05	1.60E+05	1,800	24	370	2 U	64	52	0.3	6	0.5	0.23	0.4	0.2 U	0.2 U
	ATR-OW2 (33)-G022916	2/29/16	6.20E+05	< 5.00E-01	1.75E+05	1.36E+05	16,000	360	650	2 U	330	100	0.39 J	5.6 J	3.5	2.0	4.7	0.05 J	0.22
	ATR-OW2(33)-G061516	6/15/16	NA	NA	NA	NA	11,000	51	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW2(33)-G92716	9/27/16	NA	NA	NA	NA	22,000	200	870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW2(33)-G013117	1/31/17	4.41E+04	< 5.00E-01	1.99E+03	7.78E+03	24,000	180	960	0.015 J	8.3	0.97	0.11	0.22	0.025 J	0.040 J	0.0088 J	0.2 U	0.034 J
	ATR-OW2(33)-G060617	6/6/17	8.34E+03	< 5.00E-01	4.50E+02	7.84E+03	29,000	200	11	2 U	26	0.22	0.14 J	0.26	0.017 J	0.024 J	0.014 J	0.2 U	0.2 U
	ATR-OW2 (53)-G100815	10/8/15	1.00E+04	< 5.00E-01	1.20E+00	1.92E+03	770	1.3	16	1.3 J	250	650	2.5	15	5.2	0.44 J	1.4	0.2 U	0.2 U
	ATR-OW2 (53)-G022916	2/29/16	7.80E+05	< 6.00E-01	2.48E+03	1.68E+05	6,500	16	1,000	20 U	480	390	1.3 J	2.1 J	4.9	4.2	1.5	0.023 J	0.043 J
	ATR-OU2(53)-G061616	6/16/16	NA	NA	NA	NA	24,000	110	310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-OW2(53)-G092716	9/27/16	NA	NA	NA	NA	28,000	150	9.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW2(53)-G013117	1/31/17	6.42E+03	3.00E-01 J	4.01E+01	5.60E+02	27,000	57	0.0091 J	0.49	100	90	0.93	2.6	0.92	0.39	1.6	0.11 J	0.030 J	
ATR-OW2(53)-G060617	6/6/17	7.44E+02	4.00E+00	7.00E+00	7.08E+02	28,000	26	0.0096 J	0.2 U	0.092 J	0.0061 J	0.089 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	

Table 4 (continued)
Summary of Dechlorinating Bacteria, Functional Genes, Dissolved Gases, and Volatile Fatty Acid Results
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Dechlorinating Bacteria & Functional Genes				Dissolved Gases			Volatile Fatty Acids									
			DHC	tceA Reductase	bvcA Reductase	VC Reductase	Methane	Ethane	Ethene	Lactic Acid	Acetic Acid	Propionic Acid	Formic Acid	Butyric Acid	Pyruvic Acid	i-Pentanoic Acid	Pentanoic Acid	i-Hexanoic Acid	Hexanoic Acid
			cells/mL	cells/mL	cells/mL	cells/mL	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone B	ATR-OW3 (35)-G100715	10/7/15	7.91E+02	< 5.00E-01	3.00E-01 J	4.00E-01 J	1,500	1.8	6.2	2 U	110	170	0.5 J	1.2	1.2	0.56	0.55	0.2 U	0.43
	ATR-OW3 (35)-G022916	2/29/16	2.99E+05	2.75E+03	1.53E+04	5.27E+04	24,000	5.9	16	0.031 J	32	0.41 J	0.052 J	0.015 J	0.038 J	0.10 U	0.10 U	0.20 U	0.20 U
	ATR-OW3(35)-G061516	6/15/16	NA	NA	NA	NA	13,000	24	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3(35)-G092716	9/27/16	NA	NA	NA	NA	12,000	48	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3(35)-G013117	1/31/17	5.93E+04	1.68E+02	1.68E+03	5.21E+03	17,000	42	14	0.0096 J	0.14	0.024 J	0.074 J	0.0091 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-OW3(35)-G060717	6/7/17	2.38E+03	8.15E+01	7.73E+01	1.42E+03	8,400	15	6.3	0.016 J	0.074 J	0.013 J	0.054 J	0.0063 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-OW3 (55)-G100715	10/7/15	1.90E+01	< 1.30E+00	< 1.30E+00	< 1.30E+00	44	2.7	0.54	80	330	34	120	8.7	24	0.38	0.1 U	0.2 U	0.29
	ATR-OW3 (55)-G100715R	10/7/15	2.71E+01	< 2.00E+00	< 2.00E+00	< 2.00E+00	57	2.6	0.53	83	340	36	120	8.6	24	0.38	0.1 U	0.2 U	0.28
	ATR-OW3(55)-G022916	2/29/16	9.68E+03	1.56E+01	8.95E+02	9.60E+02	14,000	3.2	6.5	2.5	490	790	3.7 J	5.0 J	4.7	2.2	2.7	0.2 U	0.49
	ATR-OW3(55)-G022916R	2/29/16	3.81E+03	7.30E+00	3.13E+02	2.89E+02	17,000	3.4	8.5	0.98 J	420	710	2.2 J	5.0 J	4.4	2.1	2.7	0.2 U	0.50
	ATR-OW3(55)-G061516	6/15/16	NA	NA	NA	NA	24,000	33	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3(55)-G092716	9/27/16	NA	NA	NA	NA	24,000	66	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3(55)-G060717	6/7/17	1.16E+04	9.00E-01	1.40E+00	3.15E+03	30,000	120	210	20 U	740	190	5.9	28	17	3.6	12	0.3	6.3
Zone C	ATR-MW15-G101315	10/13/15	5.05E+02	2.00E-01 J	7.30E+00	1.50E+00	2,400	5.2	260	26	180	55	56	0.62 J	1.5	0.1	0.18	0.2 U	0.2 U
	ATR-MW15-030116	3/1/16	1.95E+04	1.50E+02	4.14E+02	2.54E+02	1,500	11	170	0.19 J	1,200	1,100	4 J	42.0	3.7 J	1.2 J	6.5 J	2 U	0.59 J
	ATR-MW15-G061516	6/15/16	NA	NA	NA	NA	4,200	9.2	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-G092716	9/27/16	NA	NA	NA	NA	11,000	20	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-G013117	1/31/17	1.78E+05	1.04E+01	5.25E+02	1.85E+04	19,000	56	4,400	1.6 J	880	450	3.9 J	50	17	3.2	18	0.31	3.3
	ATR-MW15-G060617	6/6/17	6.13E+04	7.52E+02	6.05E+02	2.01E+04	20,000	96	4,200	20 U	850	250	3.6 J	55	39	3.3	25	0.31	7.6
	MTR-MW25(16.4)-G092712	9/27/12	2.11E+02	7.00E+00	5.00E-01	7.90E+00	1,300	20	13	0.030 J	0.038 J	0.050 U	0.068 J	0.050 U	0.15 U	0.15 U	0.070 U	0.050 U	0.050 U
	MTR-MW25(16.4)-101315	10/13/15	8.42E+03	4.90E+00	2.83E+03	7.42E+02	1,200	13	40	0.027 J	0.035 J	0.1 U	0.036 J	0.02 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW25(16.4)-030116	3/1/16	1.06E+06	1.16E+03	2.38E+04	5.28E+04	1,700	8.5	1,000	0.44 J	51	4.5 J	0.16 J	0.22 J	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
	ATR-MW25(16.4)-G061516	6/15/16	NA	NA	NA	NA	12,000	140	920	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(16.4)-G092716	9/27/16	NA	NA	NA	NA	18,000	370	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(16.4)-G013117	1/31/17	2.90E+04	5.43E+02	8.43E+02	2.07E+03	25,000	280	18	0.80 J	48	9.2	0.29	0.44	0.16	0.14	0.068 J	0.2 U	0.2 U
	ATR-MW25(16.4)-G060617	6/6/17	4.92E+03	5.68E+02	9.34E+01	1.88E+03	27,000	240	6.3	0.2 U	0.2	0.011 J	0.044 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW25(16.4)-G060617R	6/6/17	4.58E+03	5.29E+02	1.01E+02	2.11E+03	26,000	240	6.3	0.2 U	0.22	0.1 U	0.049 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW25(32.6)-G101315	10/13/15	3.26E+02	8.00E-01	1.34E+01	4.50E+00	3,100	18	370	0.02 J	1.4	0.15	1.5	0.023 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW25(32.6)-G030116	3/1/16	6.51E+05	4.77E+02	1.73E+04	2.75E+04	10,000	45	1,400	0.15 J	780	730	2.6 J	33	5.6 J	1.9 J	35	0.18 J	4.2
	ATR-MW25(32.6)-G061516	6/15/16	NA	NA	NA	NA	18,000	70	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G092716	9/27/16	NA	NA	NA	NA	24,000	450	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G013117	1/31/17	1.31E+04	2.12E+01	1.56E+03	6.28E+02	31,000	330	0.77	0.63	150	2.0	0.65	0.22	0.046 J	0.30	0.1 U	0.094 J	0.2 U
	ATR-MW25(32.6)-G060617	6/6/17	5.24E+02	8.50E+00	1.14E+02	1.80E+02	28,000	33	0.028 J	2 U	140	51	0.92 J	0.77 J	3.3	1.0	0.68	0.5	0.2 U
	ATR-MW25(45.2)-G101315	10/13/15	1.70E+02	< 5.00E-01	6.00E-01	<5.00E-01	600	4.5	12	0.017 J	0.024 J	0.1 U	0.056 J	0.0091 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW25(45.2)-G030116	3/1/16	3.08E+04	2.10E+00	6.35E+03	2.10E+00	1,100	10	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G061516	6/15/16	NA	NA	NA	NA	3,000	8.6	96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G092716	9/27/16	NA	NA	NA	NA	9,800	12	1,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G013117	1/31/17	3.34E+05	1.20E+00	3.15E+02	4.47E+04	21,000	65	1,600	20 U	970	390	3.6 J	32	14	3.0	20	0.22	2.4
	ATR-MW25(45.2)-G060617	6/6/17	1.00E+04	1.60E+00	2.17E+01	4.73E+03	18,000	310	400	20 U	830	130	4.8	17	11	3.6	8.4	0.24	1.3
	ATR-OW4(35)-G101315	10/13/15	5.00E+00	< 2.30E+00	< 2.30E+00	< 2.30E+00	380	22	6.5	55	400	94	350	6.1	11	0.064 J	1.6	0.2 U	0.66
	ATR-OW4(35)-G030116	3/1/16	3.71E+03	1.37E+01	4.01E+02	4.67E+01	6,600	65	29	0.18 J	900	610	1.8 J	36	4.6 J	2.6	17	2.0 U	2.5
ATR-OW4(35)-G061516	6/15/16	NA	NA	NA	NA	30,000	7.5	730	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW4(35)-G092716	9/27/16	NA	NA	NA	NA	20,000	8.4	760	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW4(35)-G013117	1/31/17	3.10E+03	3.82E+01	1.07E+02	9.96E+01	16,000	48	610	66	1,500	750	8.3 J	370	17	4.6 J	20	1.7 J	14	
ATR-OW4(35)-G060717	6/7/17	3.59E+03	2.60E+02	1.66E+02	9.16E+02	23,000	39	8.3	2 U	500	170	5.5 J	39	28	5.2	14	0.7	9.8	

Table 4 (continued)
Summary of Dechlorinating Bacteria, Functional Genes, Dissolved Gases, and Volatile Fatty Acid Results
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Dechlorinating Bacteria & Functional Genes				Dissolved Gases			Volatile Fatty Acids									
			DHC	tceA Reductase	bvcA Reductase	VC Reductase	Methane	Ethane	Ethene	Lactic Acid	Acetic Acid	Propionic Acid	Formic Acid	Butyric Acid	Pyruvic Acid	i-Pentanoic Acid	Pentanoic Acid	i-Hexanoic Acid	Hexanoic Acid
			cells/mL	cells/mL	cells/mL	cells/mL	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone C	ATR-OW4(54)-G101315	10/13/15	1.62E+02	< 5.00E-01	< 5.00E-01	< 5.00E-01	120	0.22	0.052 J	0.2 U	1.3	0.36	0.034 J	0.031 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-OW4(54)-G030116	3/1/16	4.52E+02	2.00E-01 J	7.00E-01	4.00E-01 J	260	0.31	0.094 J	0.52 J	8.0	5.2	0.15 J	0.14 J	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
	ATR-OW4(54)-G061516	6/15/16	NA	NA	NA	NA	730	0.24	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW4(54)-G092716	9/27/16	NA	NA	NA	NA	6,800	0.25	0.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW4(54)-G013117	1/31/17	8.59E+02	5.00E-01 J	3.00E-01 J	< 5.00E-01	14,000	0.40	0.10	2 U	160	460	2.0	7.1	3.9	1.6	3.0	0.015 J	0.021 J
	ATR-OW4(54)-G060617	6/6/17	4.77E+01	< 5.00E-01	< 5.00E-01	2.00E-01 J	24,000	0.19	0.072 J	2 U	440	400	2.3	9.0	4.0	0.89	3.3	0.2 U	0.063 J
Zone D	ATR-MW16-G100715	10/7/15	4.06E+04	3.71E+01	9.62E+02	5.56E+03	8,400	45	18	0.026 J	0.21	0.012 J	0.042 J	0.02 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW16-G030116	3/1/16	5.64E+04	5.01E+01	3.18E+03	2.05E+03	4.6	0.026 J	0.021 J	0.015 J	0.34	0.0056 J	0.025 J	0.0087 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW16-G061416	6/14/16	NA	NA	NA	NA	12,000	100	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW16-G092616	9/26/16	NA	NA	NA	NA	22,000	84	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW16-G013017	1/30/17	1.18E+05	2.85E+02	8.94E+03	3.53E+04	30,000	170	180	0.26 J	140	79	1.3	4.2	1.9	0.53	2.4	0.052 J	0.14 J
	ATR-MW16-G060617	6/6/17	2.14E+04	1.88E+02	5.73E+02	1.64E+04	21,000	160	160	2 U	200	120	1.6 J	7.2	2.6	0.79	3.1	0.072 J	0.25
	ATR-MW17-G100715	10/7/15	3.00E-01 J	< 5.00E-01	< 5.00E-01	< 5.00E-01	3.8	0.041	0.016	0.026 J	0.037 J	0.1 U	0.033 J	0.017 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW17-G030116	3/1/16	9.00E-01	< 5.00E-01	< 5.00E-01	< 5.00E-01	11,000	330	150	0.0085 J	0.028 J	0.0031 J	0.028 J	0.0085 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW17-G061416	6/14/16	NA	NA	NA	NA	3.1	0.046	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW17-G092616	9/26/16	NA	NA	NA	NA	2.2	0.023 J	0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW17-G013017	1/30/17	1.56E+02	< 5.00E-01	< 5.00E-01	< 5.00E-01	1.3	0.035 J	0.019 J	0.26 J	1.0	6.4	0.080 J	0.012 J	0.0096 J	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW17-G060617	6/6/17	2.46E+01	< 5.00E-01	< 5.00E-01	6.00E-01	10	0.026 J	0.037 J	0.2 U	0.25	0.037 J	0.2 U	0.0065 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	MTR-MW26(17.5)-G092712	9/27/12	2.70E+00	< 5.00E-01	2.00E-01 J	< 5.00E-01	790	25	3.2	0.10 U	0.0083 J	0.050 U	0.037 J	0.050 U	0.15 U	0.15 U	0.070 U	0.050 U	0.050 U
	MTR-MW26(17.5)-G030613	3/6/13	NA	NA	NA	NA	NA	NA	NA	0.036 J	0.91	0.15	0.047 J	0.050 U	0.15 U	0.15 U	0.070 U	0.050 U	0.11
	MTR-MW26(17.5)-G050313	5/3/13	3.33E+04*	7.19E+04*	2.39E+03*	4.05E+02*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(17.5)-G100715	10/7/15	1.20E+06	2.30E+02	1.64E+05	2.45E+05	4,100	27	260	2 U	64	31	0.4	1.3	0.22	0.18	0.2	0.2 U	0.3
	ATR-MW26(17.5)-G030116	3/1/16	1.36E+05	5.92E+02	1.21E+04	2.00E+03	15,000	430	190	0.44 J	34	2.3	0.15 J	0.12 J	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U
	ATR-MW26(17.5)-G061416	6/14/16	NA	NA	NA	NA	20,000	340	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(17.5)-G092616	9/26/16	NA	NA	NA	NA	16,000	250	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(17.5)-G013017	1/30/17	3.06E+03	1.51E+01	2.09E+02	2.45E+02	19,000	220	3.0	0.012 J	0.29	0.017 J	0.069 J	0.0072 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	ATR-MW26(17.5)-G060617	6/6/17	4.22E+02	4.28E+01	4.62E+01	2.18E+02	25,000	180	0.0042 J	0.012 J	0.049 J	0.1 U	0.044 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U
	MTR-MW26(28.8)-G092712	9/27/12	1.10E+00	< 5.00E-01	< 5.00E-01	< 5.00E-01	120	2.6	0.043	0.036 J	0.070 U	0.050 U	0.069 J	0.050 U	0.15 U	0.15 U	0.070 U	0.050 U	0.050 U
	MTR-MW26(28.8)-G092712R	9/27/12	NA	NA	NA	NA	110	2.5	0.037	0.10 U	0.012 J	0.050 U	0.055 J	0.050 U	0.15 U	0.15 U	0.070 U	0.050 U	0.050 U
	ATR-MW26(28.8)-G030613	3/6/13	NA	NA	NA	NA	NA	NA	NA	1.0 U	170	100	1.4	1.7	0.84	0.54	0.16	0.050 U	0.10 U
	ATR-MW26(28.8)-G050313	5/3/13	1.65E+04*	2.73E+03*	8.12E+03*	5.73E+01*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(28.8)-G100715	10/7/15	6.86E+04	1.05E+02	2.56E+03	7.06E+03	15,000	62	8.6	2 U	25	48	0.21	0.79	0.24	0.098 J	0.2	0.2 U	0.2 U
	ATR-MW26(28.8)-G030116	3/1/16	5.40E+03	1.56E+01	2.85E+02	6.53E+01	31,000	36	0.0086 J	0.011 J	4.9	2.5	0.16	0.018 J	0.045 J	0.1 U	0.0097 J	0.2 U	0.2 U
	ATR-MW26(28.8)-G061416	6/14/16	NA	NA	NA	NA	28,000	57	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(28.8)-G092616	9/26/16	NA	NA	NA	NA	22,000	90	0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(28.8)-G013017	1/30/17	2.92E+03	1.63E+01	6.18E+01	2.50E+02	27,000	49	0.31	0.16 J	200	13	0.87	5.0	0.51	0.50	0.42	0.033 J	0.46
ATR-MW26(28.8)-G060617	6/6/17	5.93E+01	8.00E+00	8.20E+00	7.89E+01	27,000	19	0.1 U	2 U	110	1.3	0.47 J	0.85 J	0.07 J	0.26	0.023 J	0.2 U	0.11 J	
ATR-MW26(58.8)-G100715	10/7/15	3.96E+02	< 5.00E-01	9.00E-01	3.00E-01 J	77	1.3	0.66	0.017 J	0.026 J	0.1 U	0.023 J	0.0074 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	
ATR-MW26(58.8)-G030116	3/1/16	3.63E+03	7.98E+01	1.40E+00	7.40E+00	240	1.8	0.58	0.47 J	54	62	0.46 J	0.46 J	0.27 J	1.0 U	0.14 J	2.0 U	2.0 U	
ATR-MW26(58.2)-G061416	6/14/16	NA	NA	NA	NA	810	2.2	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW26(58.2)-G092616	9/26/16	NA	NA	NA	NA	9,500	3.1	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW26(58.8)-G013017	1/30/17	4.72E+04	2.04E+02	1.90E+00	8.68E+03	25,000	15	50	0.28	140	49	0.98	3.3	0.99	0.38	1.5	0.028 J	0.23	
ATR-MW26(58.8)-G013017R	1/30/17	1.65E+05	8.34E+02	1.64E+01	2.69E+04	23,000	14	49	0.26	140	50	0.98	3.3	1.0	0.39	1.5	0.035 J	0.24	
ATR-MW26(58.2)-G060617	6/6/17	9.10E+03	4.73E+02	4.40E+00	5.16E+03	23,000	33	89	2 U	220	5.6 J	0.84 J	1.6	0.99 J	0.5	0.2	0.2 U	0.057 J	

Table 4 (continued)
Summary of Dechlorinating Bacteria, Functional Genes, Dissolved Gases, and Volatile Fatty Acid Results
Performed on the Groundwater Samples Collected from Performance Monitoring Wells
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Treatment Area	Sample ID	Sample Date	Dechlorinating Bacteria & Functional Genes				Dissolved Gases			Volatile Fatty Acids										
			DHC	tceA Reductase	bvcA Reductase	VC Reductase	Methane	Ethane	Ethene	Lactic Acid	Acetic Acid	Propionic Acid	Formic Acid	Butyric Acid	Pyruvic Acid	i-Pentanoic Acid	Pentanoic Acid	i-Hexanoic Acid	Hexanoic Acid	
			cells/mL	cells/mL	cells/mL	cells/mL	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Zone D	ZVI-2(17.5)-G121812	12/18/12	1.00E+00	1.00E+00	1.00E+00	1.00E+00	NA	NA	NA	1 U	22	18	0.36	0.088	0.034 J	0.15 U	0.07 U	0.05 U	0.1 U	
	ZVI-2(17.5)-G030613	3/6/13	1.15E+01*	8.83E+00*	< 4.00E-01*	< 4.00E-01*	930	16	4.6	0.067 J	0.23	0.0096 J	0.023 J	0.033 J	0.15 U	0.15 U	0.070 U	0.050 U	0.10 U	
	ZVI-2(17.5)-G050313	5/3/13	1.34E+03*	5.90E+03*	1.70E+00*	5.80E+00*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	ATR-ZVI2 (17.5)-G100715	10/7/15	8.61E+05	6.91E+02	3.74E+04	9.92E+04	3,200	38	320	2 U	34	15	0.22	0.36	0.086 J	0.11	0.09 J	0.2 U	0.2 U	
	ATR-ZVI2(17.5)-030216	3/2/16	9.04E+04	4.41E+02	7.59E+03	2.09E+04	13,000	300	180	0.016 J	0.27	0.0035 J	0.047 J	0.0079 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	
	ATR-ZVI2(17.5)-G061416	6/14/16	NA	NA	NA	NA	18,000	350	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2(17.5)-G092616	9/26/16	NA	NA	NA	NA	19,000	380	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2(17.5)-G013117	1/31/17	1.50E+04	1.11E+02	5.20E+02	7.70E+02	25,000	200	0.012 J	2 U	23	0.20 J	0.074 J	0.11	0.010 J	0.048 J	0.1 U	0.2 U	0.2 U	
	ATR-ZVI2(17.5)-G060617	6/6/17	2.22E+03	2.29E+02	9.89E+01	7.32E+02	27,000	200	0.0042 J	0.2 U	0.054 J	0.1 U	0.058 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	
	ZVI-2(32.5)-G121812	12/18/12	1.00E+00	1.00E+00	1.00E+00	1.00E+00	NA	NA	NA	37	260	98	1.2	11	0.52 J	0.15 U	0.10	0.05 U	0.1 U	
	ZVI-2(32.5)-G030613	3/6/13	2.00E+00*	2.70E+00*	< 1.40E+00*	< 1.40E+00*	650	15	10	0.044 J	31	19	0.32 J	0.27 J	0.15	0.20	0.040 J	0.050 U	0.10 U	
	ZVI-2(32.5)-G030613	5/3/13	1.56E+04*	7.94E+03*	8.76E+01*	7.90E+01*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2 (32.5)-G100715	10/7/15	2.56E+05	2.70E+02	1.43E+01	3.23E+04	1,000	6	14	0.091 J	2.4	1.6	0.043 J	0.02 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	
	ATR-ZVI2(32.5)-G030116	3/1/16	2.50E+05	6.84E+02	2.59E+01	8.44E+03	5,200	5.7	48	0.009 J	7.4	6.2	0.16	0.02 J	0.017 J	0.1 U	0.0068 J	0.2 U	0.2 U	
	ATR-ZVI2(32.5)-G061416	6/14/16	NA	NA	NA	NA	8,300	44	54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2(32.5)-G092616	9/26/16	NA	NA	NA	NA	5,200	31	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2(32.5)-G013117	1/31/17	6.22E+04	3.33E+02	1.36E+02	4.21E+03	25,000	190	130	2 U	180	62	1.3	3.7	2.0	0.43	2.1	0.019 J	0.054 J	
	ATR-ZVI2(32.5)-G060617	6/6/17	5.64E+03	2.81E+02	3.48E+01	2.47E+03	34,000	170	1.7	2 U	83	16	0.84	0.74	0.89 J	0.5	0.28	0.2 U	0.2 U	
	ATR-OW5 (16)-G100715	10/7/15	2.06E+03	1.30E+00	6.00E+00	2.02E+01	350	4	9.8	2 U	120	180	0.9	2.3	1.0	0.75	0.066 J	0.2 U	0.2 U	
	ATR-OW5(16)-030116	3/1/16	1.54E+06	6.45E+03	3.01E+03	6.32E+04	2,400	5.1	180	0.01 J	12	7	0.21	0.046 J	0.042 J	0.1 U	0.012 J	0.2 U	0.2 U	
	ATR-OW5(16)-G061416	6/14/16	NA	NA	NA	NA	5,200	2.9	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(16)-G092716	9/27/16	NA	NA	NA	NA	17,000	60	74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(16)-G013017	1/30/17	2.51E+05	2.37E+03	5.35E+03	4.31E+04	12,000	35	8.4	0.12 J	16	5.9	0.13	0.14	0.072 J	0.043 J	0.038 J	0.2 U	0.2 U	
	ATR-OW5(16)-G060617	6/6/17	4.37E+04	6.54E+03	7.71E+02	1.31E+04	18,000	36	1.8	0.036 J	0.3	0.1 U	0.036 J	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	
	ATR-OW5 (35)-G100715	10/7/15	4.80E+03	2.00E-01 J	1.30E+00	3.60E+00	1,200	3.4	56	2 U	85	330	0.83 J	1.2	0.72 J	0.081 J	0.075 J	0.2 U	0.2 U	
	ATR-OW5(35)-G030116	3/1/16	2.48E+06	7.78E+03	3.34E+04	8.55E+04	6,700	11	130	0.3 J	280	120	0.45 J	1.8	2.1	0.75 J	0.8 J	2.0 U	2 U	
	ATR-OW5(35)-G061416	6/14/16	NA	NA	NA	NA	22,000	71	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(35)-G092616	9/26/16	NA	NA	NA	NA	22,000	110	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(35)-G013017	1/30/17	3.10E+04	1.14E+02	6.60E+01	3.62E+03	31,000	21	0.69	0.18 J	260	24	0.82	5.6	0.78	0.99	0.42	0.2 U	0.45	
	ATR-OW5(35)-G060617	6/6/17	7.94E+03	1.61E+02	2.13E+01	3.83E+03	28,000	34	0.016 J	2 U	45	0.19 J	0.24	0.14	0.032 J	0.13	0.1 U	0.2 U	0.2 U	
ATR-OW5 (54)-G100715	10/7/15	1.94E+03	< 5.00E-01	4.00E-01 J	5.39E+01	610	2.7	11	0.031 J	0.056 J	0.047 J	0.028 J	0.012 J	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U		
ATR-OW5(54)-G030116	3/1/16	1.50E+06	7.07E+02	5.87E+02	2.42E+05	1,100	7.5	180	0.12 J	550	760	2.3 J	2.7 J	1.6 J	1.2	0.84 J	2.0 U	2.0 U		
ATR-OW5(45)-G061416	6/14/16	NA	NA	NA	NA	2,900	14	310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW5(45)-G092616	9/26/16	NA	NA	NA	NA	16,000	19	860	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW5(45)-G013017	1/30/17	3.24E+05	5.25E+01	5.36E+02	6.81E+04	34,000	200	940	4.1 J	570	470	4.7	35	3.1	1.8	3.8	0.42	0.25		
ATR-OW5(45)-G060617	6/6/17	3.94E+03	7.75E+01	1.24E+01	1.53E+03	25,000	120	1.5	2 U	420	230	20 U	19	4.3	3.0	5.8	0.5	0.52		

Notes: Blue text is performance monitoring data
 NA - Not Analyzed
 NM - Not Measured
 J - Estimated concentration, analyte detected below quantitation limit
 U - Analyzed but not detected above the MDL
 cells/mL - cells per milliliter

mg/L - milligram per liter
 µg/L - micro grams per liter
Bold - Indicates measured or laboratory detection
 DHC - Dehalococcoides Bacteria
 *DHC Sample filtered by Microbial Insights at the laboratory

Prepared by: RLB
 Checked by: PJS

Table 5
Surveyed Elevation Data and Depth to Water for Monitoring Wells Used
for Groundwater Elevation Contour Mapping - 05 June 2017
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Monitoring Well/Point ID	Top of Casing Elevation ⁽¹⁾	Depth to Water (btoc) ⁽²⁾	Ground Water Elevation
Shallow Overburden Wells			
MW-1	840.48	38.70	801.78
MW-3	805.45	21.15	784.30
MW-5	807.89	20.26	787.63
MW-6C	810.40	25.26	785.14
MW-9C	808.16	23.02	785.14
MW-12	808.46	23.37	785.09
MW-13	806.67	21.61	785.06
MW-14	802.70	17.81	784.89
MW-17	784.41	2.58	781.83
MW-20(35)	810.42	25.27	785.15
MW-21(40.2)	810.33	25.42	784.91
MW-23(39.9)	816.67	31.31	785.36
MW-24(24.9)	804.92	20.08	784.84
MW-25(16.4)	791.93	7.57	784.36
MW-26(17.5)	792.16	10.08	782.08
MW-27(18)	785.82	4.07	781.75
MW-30(41.1)	794.57	18.95	775.62
MW-31(30.9)	781.48	7.94	773.54
MW-53(41)	809.87	24.54	785.33
MW-57(38)	795.51	8.06	787.45
MW-59(29)	799.57	14.18	785.39
MW-60(38)	798.51	12.88	785.63
MW-62(36)	810.71	25.57	785.14
MW-65(32)	809.40	24.24	785.16
MW-67(30)	809.53	NM	NM
MW-68(32)	809.46	24.17	785.29
MW-71(33)	809.15	23.87	785.28
MW-72(32)	808.92	23.66	785.26
MW-75(32)	809.39	24.25	785.14
MW-76(30)	809.28	23.97	785.31
MW-77(41)	809.39	24.20	785.19
MW-78(35)	809.30	24.12	785.18
MW-79(30)	809.26	24.08	785.18
MW-81(27)	798.34	12.51	785.83
MW-84(44)	824.91	40.13	784.78
MW-85(39)	796.49	11.68	784.81
MW-89(28)	797.77	12.30	785.47
OW-1(28)	805.18	20.14	785.04
OW-2(33)	805.54	20.66	784.88
OW-3(35)	801.72	16.95	784.77
OW-4(35)	801.35	17.05	784.30
OW-5(16)	790.72	8.21	782.51
OW-6(38)	789.27	8.25	781.02
PM-2	798.45	12.73	785.72
PM-3	808.40	25.11	783.29
ZVI-2(17.5)	791.17	9.11	782.06

Table 5
Surveyed Elevation Data and Depth to Water for Monitoring Wells Used
for Groundwater Elevation Contour Mapping - 05 June 2017
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana

Monitoring Well/Point ID	Top of Casing Elevation ⁽¹⁾	Depth to Water (btoc) ⁽²⁾	Ground Water Elevation
Intermediate Overburden Wells			
MW-9B	808.07	22.95	785.12
MW-15	792.90	8.81	784.09
MW-19(53)	809.56	24.36	785.20
MW-20(51)	810.41	25.25	785.16
MW-24(55.4)	804.94	20.09	784.85
MW-25(45.2)	791.91	7.86	784.05
MW-26(58.2)	792.17	9.36	782.81
MW-27(53.05)	785.84	3.04	782.80
MW-29(82.5)	801.45	24.25	777.20
MW-31(55.5)	781.47	8.41	773.06
MW-52(55)	798.84	14.10	784.74
MW-55(49)	799.24	12.69	786.55
MW-56(50)	797.23	10.89	786.34
MW-82(58)	807.38	22.28	785.10
MW-83(64)	807.67	22.65	785.02
MW-84(65)	824.56	39.99	784.57
OW-1(39)	805.15	20.12	785.03
OW-2(53)	805.50	20.58	784.92
OW-3(55)	801.66	16.91	784.75
OW-4(54)	801.33	16.97	784.36
OW-5(35)	790.76	7.37	783.39
OW-6(63)	789.27	7.61	781.66
ZVI-2(32.5)	791.19	8.96	782.23

NM - Not Measured

⁽¹⁾ Top of casing elevation established using NAVD 88 datum (US survey feet)

⁽²⁾ Below top of casing (feet)

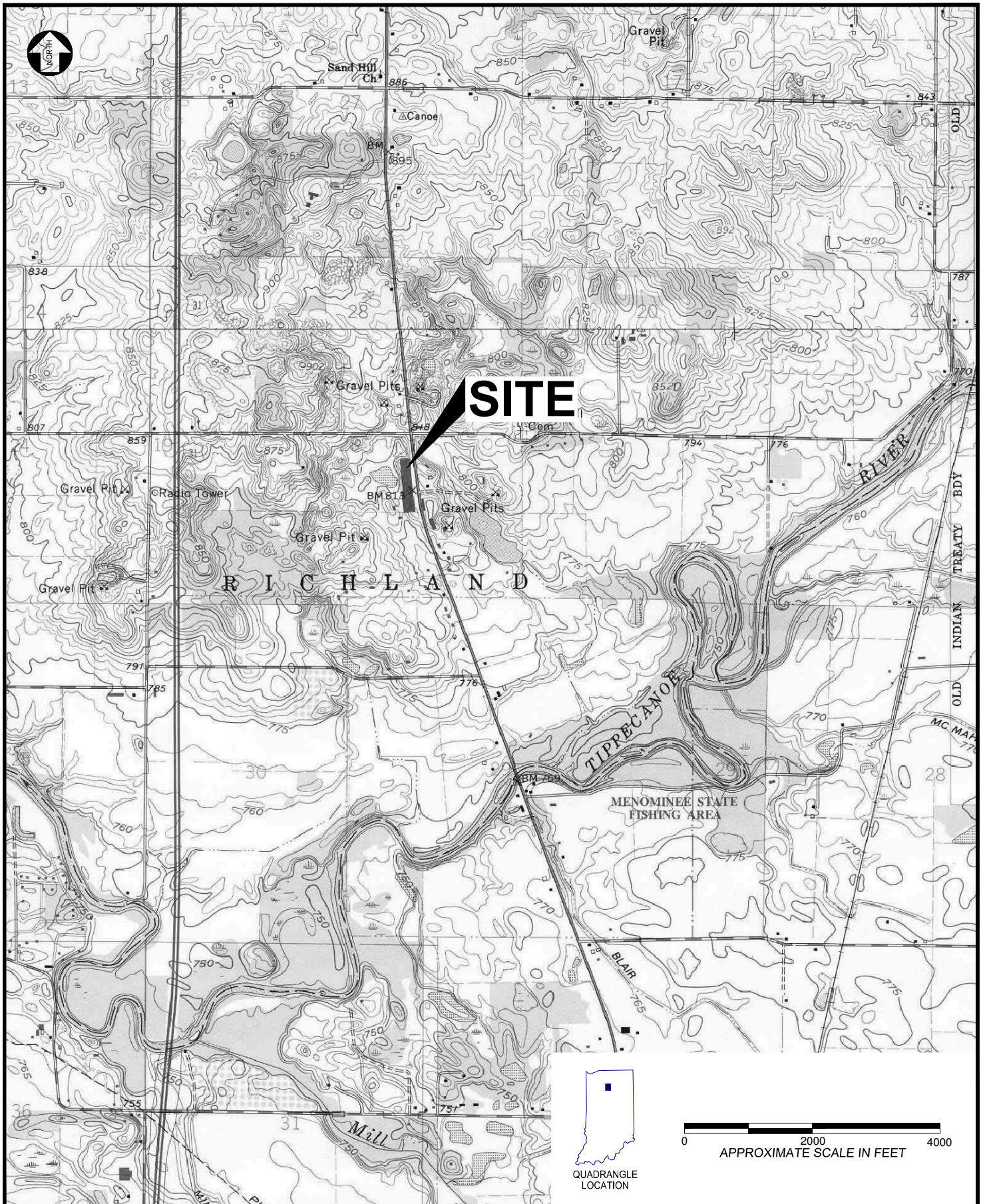
Prepared By: RLB

Checked By: PJS



Textron, Inc.
TORX Facility Remediation
Report of Performance Monitoring

FIGURES



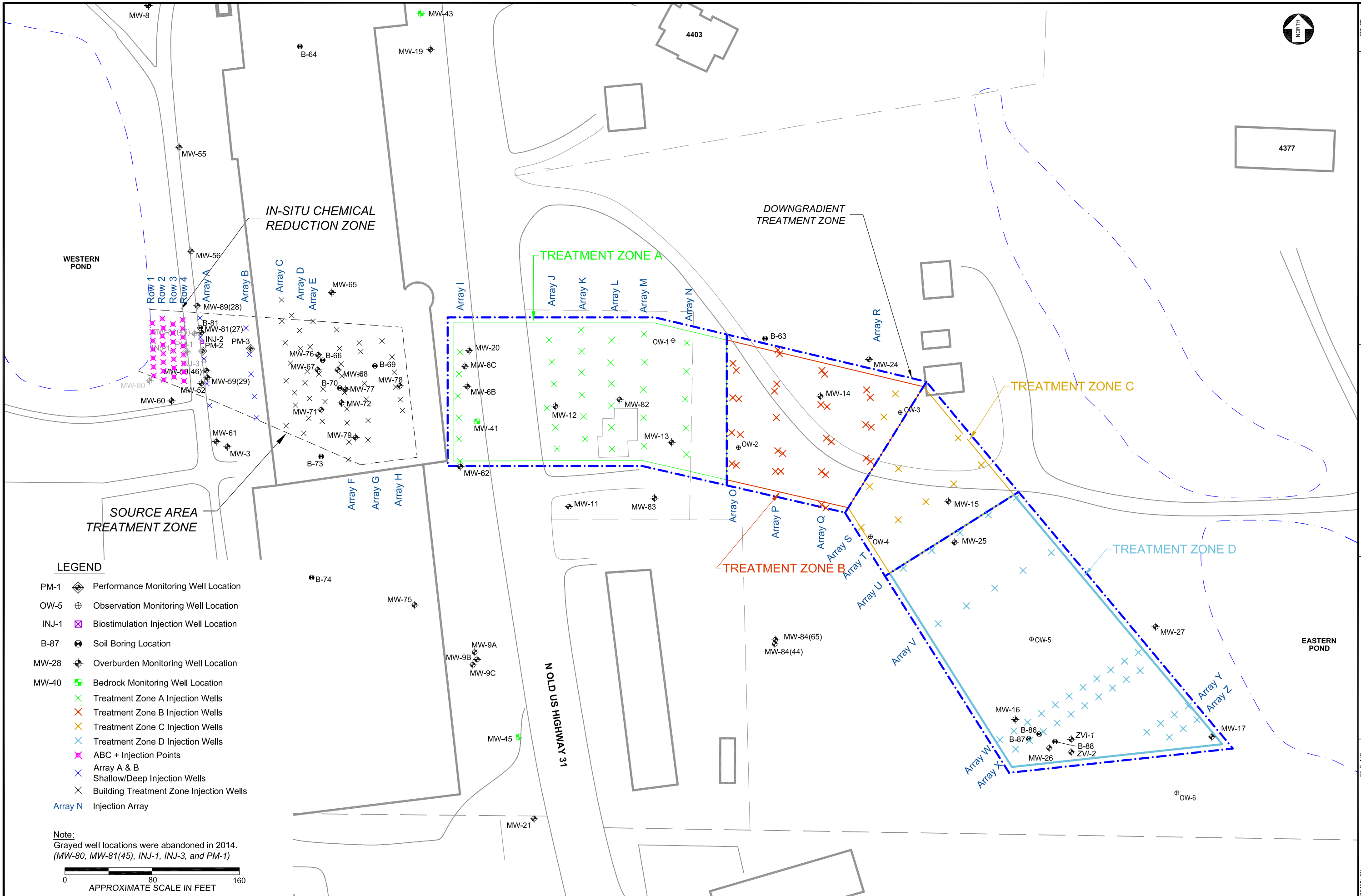
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 PJS 09/11/2017
 SOURCE USGS topographic quadrangles of
 Argos, IN, 1994 and Rochester, IN, 1992.
 PROJECT NO. SCALE
 3359 15 1040 SEE ABOVE

FORMER TORX FACILITY
4366 NORTH OLD US HIGHWAY 31
ROCHESTER, INDIANA

amec foster wheeler 

SITE
LOCATION
MAP

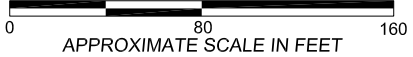
FIGURE
1
 SHEET 1 of 1

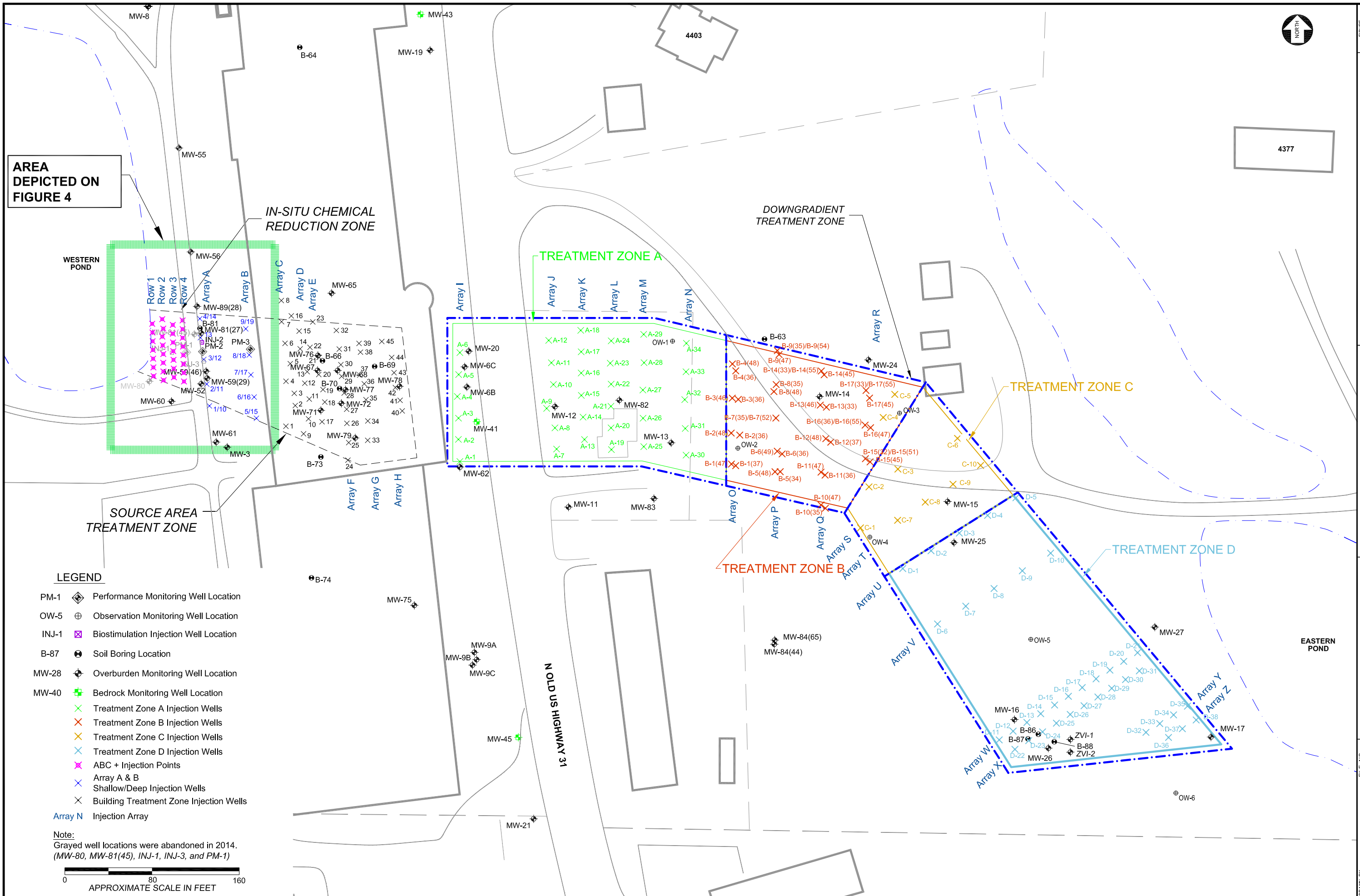


LEGEND

- PM-1 Performance Monitoring Well Location
- OW-5 Observation Monitoring Well Location
- INJ-1 Biostimulation Injection Well Location
- B-87 Soil Boring Location
- MW-28 Overburden Monitoring Well Location
- MW-40 Bedrock Monitoring Well Location
- Treatment Zone A Injection Wells
- Treatment Zone B Injection Wells
- Treatment Zone C Injection Wells
- Treatment Zone D Injection Wells
- ABC + Injection Points
- Array A & B Shallow/Deep Injection Wells
- Building Treatment Zone Injection Wells
- Array N Injection Array

Note:
 Grayed well locations were abandoned in 2014.
 (MW-80, MW-81(45), INJ-1, INJ-3, and PM-1)





AREA
DEPICTED ON
FIGURE 4

IN-SITU CHEMICAL
REDUCTION ZONE

DOWNGRADENT
TREATMENT ZONE

TREATMENT ZONE A

TREATMENT ZONE C

TREATMENT ZONE B

TREATMENT ZONE D

SOURCE AREA
TREATMENT ZONE

LEGEND

- PM-1 Performance Monitoring Well Location
- OW-5 Observation Monitoring Well Location
- INJ-1 Biostimulation Injection Well Location
- B-87 Soil Boring Location
- MW-28 Overburden Monitoring Well Location
- MW-40 Bedrock Monitoring Well Location
- Treatment Zone A Injection Wells
- Treatment Zone B Injection Wells
- Treatment Zone C Injection Wells
- Treatment Zone D Injection Wells
- ABC + Injection Points
- Array A & B Shallow/Deep Injection Wells
- Building Treatment Zone Injection Wells
- Array N Injection Array

Note:
Grayed well locations were abandoned in 2014.
(MW-80, MW-81(45), INJ-1, INJ-3, and PM-1)

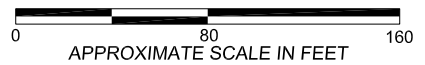


FIGURE
3
SHEET 1 of 1

**INITIAL FULL-SCALE
INJECTION LOCATIONS**

**TORX FACILITY
4366 NORTH OLD US HIGHWAY 31
ROCHESTER, INDIANA**

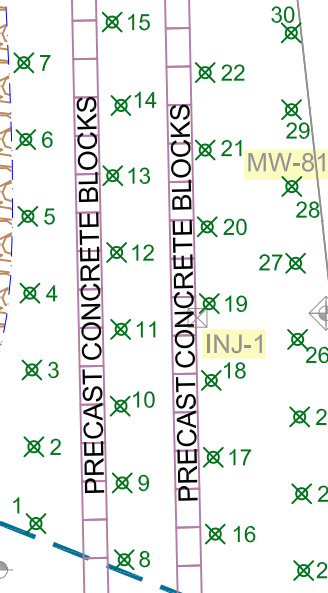
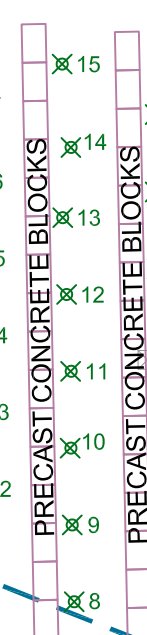
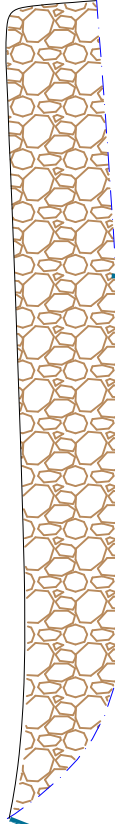
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APPROVED BY PJS	SOURCE Wells surveyed by Territorial Engineering, Fulton County, IN GIS, 2005.		
PROJECT NO. 3.359.15.1040			



WESTERN
POND

ACCESS ROAD

ROW 1
ROW 2
ROW 3
ROW 4



MW-56

MW-89

B-81

MW-81(27)

MW-81(45)

INJ-2

IN-SITU
CHEMICAL
REDUCTION
TREATMENT
ZONE

PM-3

PM-2

PM-1

MW-59(46)

INJ-3

MW-59(29)

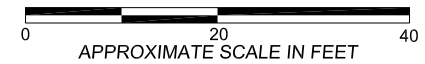
MW-80

MW-52

MW-60

MW-61

EQUIPMENT
STAGING AREA



LEGEND

- PM-1 PERFORMANCE MONITORING WELL LOCATION
- INJ-1 BIOSTIMULATION INJECTION WELL LOCATION
- B-87 SOIL BORING LOCATION OVERBURDEN
- MW-28 MONITORING WELL LOCATION
- ABC + INJECTION POINTS
- GRAVEL BACKFILL AREA
- ABANDONED WELL LOCATION

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 PJS 09/11/2017
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 3359 15 1040 SEE ABOVE

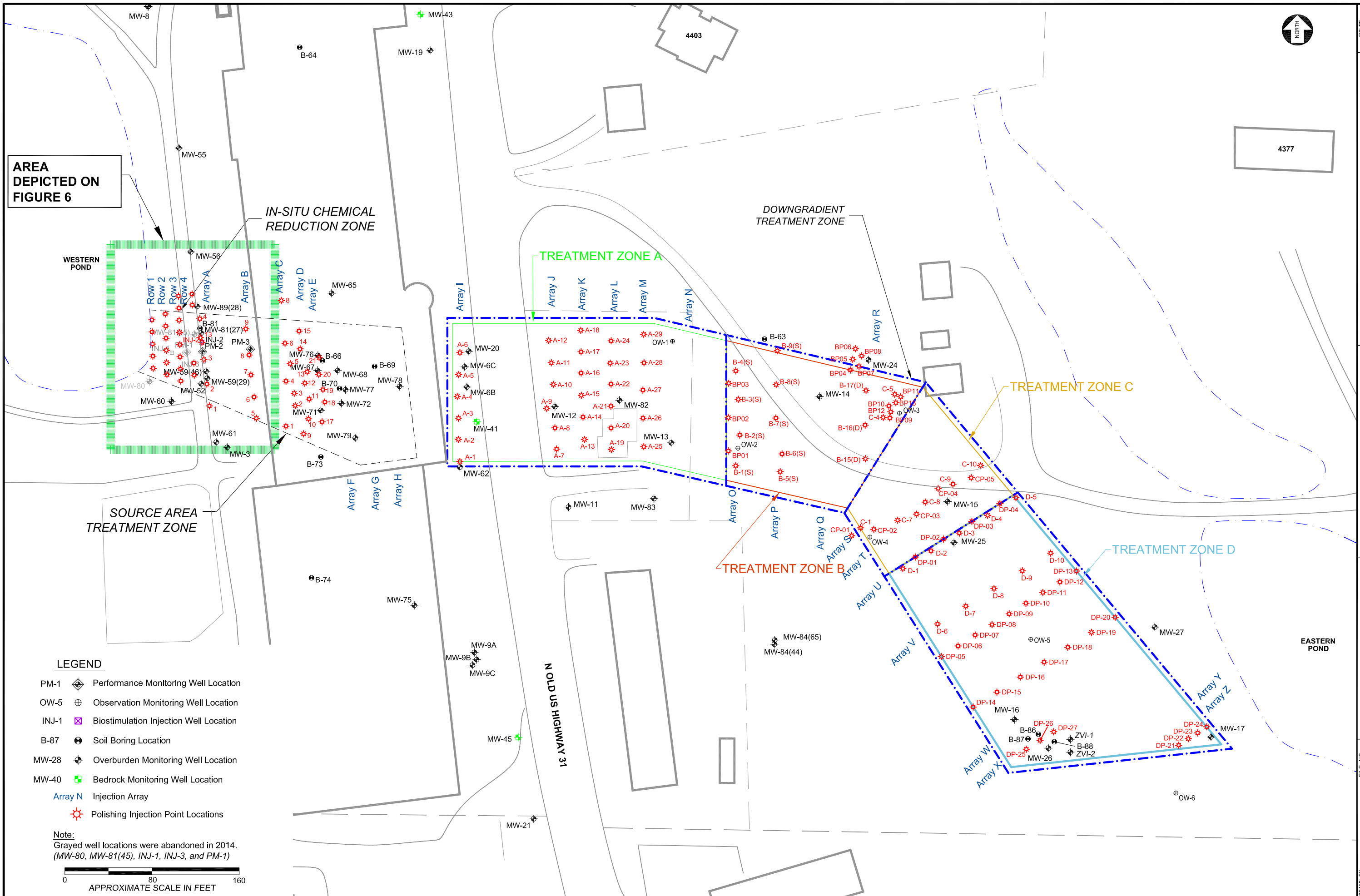
TORX FACILITY
 4366 NORTH OLD US HIGHWAY 31
 ROCHESTER, INDIANA



**SOURCE AREA INITIAL
 IN-SITU CHEMICAL
 REDUCTION
 INJECTION POINTS**

FIGURE
4

SHEET 1 of 1





WESTERN POND

ROW 1

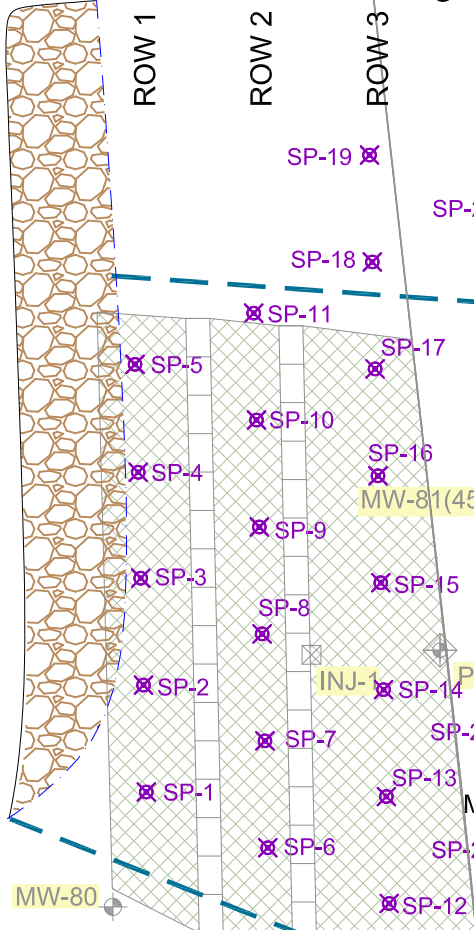
ROW 2

ROW 3

ROW 4

ACCESS ROAD

SOURCE AREA TREATMENT ZONE



MW-80

MW-60

MW-56

SP-19

SP-22

MW-89

SP-18

SP-11

SP-17

SP-5

SP-10

SP-16

SP-4

SP-9

SP-15

SP-3

SP-8

SP-14

SP-2

SP-7

SP-21

SP-1

SP-6

SP-13

MW-59(46)

MW-52

MW-59(29)

MW-52

MW-52

MW-52

MW-52

MW-52

MW-52

MW-61

PM-3

B-81

MW-81(27)

MW-81(45)

INJ-2

PM-2

PM-1

INJ-3

MW-59(46)

MW-59(29)

MW-52

MW-52

MW-52

MW-52

MW-52

MW-52

MW-52

MW-52

MW-52

MW-52

MW-52

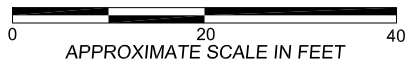
MW-52

MW-52

MW-52

LEGEND

- PM-1 PERFORMANCE MONITORING WELL LOCATION
- INJ-1 BIOSTIMULATION INJECTION WELL LOCATION
- B-87 SOIL BORING LOCATION OVERBURDEN
- MW-28 MONITORING WELL LOCATION
- ABANDONED WELL LOCATION
- SOURCE POLISHING (SP) INJECTION POINTS
- GRAVEL BACKFILL AREA
- THREE LEVEL INJECTION BENCH



APPROXIMATE SCALE IN FEET

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 SOURCE Wells surveyed by Territorial Engineering, 2009;
 Fulton County, IN GIS, 2005; historical maps from Textron
 PROJECT NO. SCALE
 3359 15 1040 SEE ABOVE

TORX FACILITY
4366 NORTH OLD US HIGHWAY 31
ROCHESTER, INDIANA

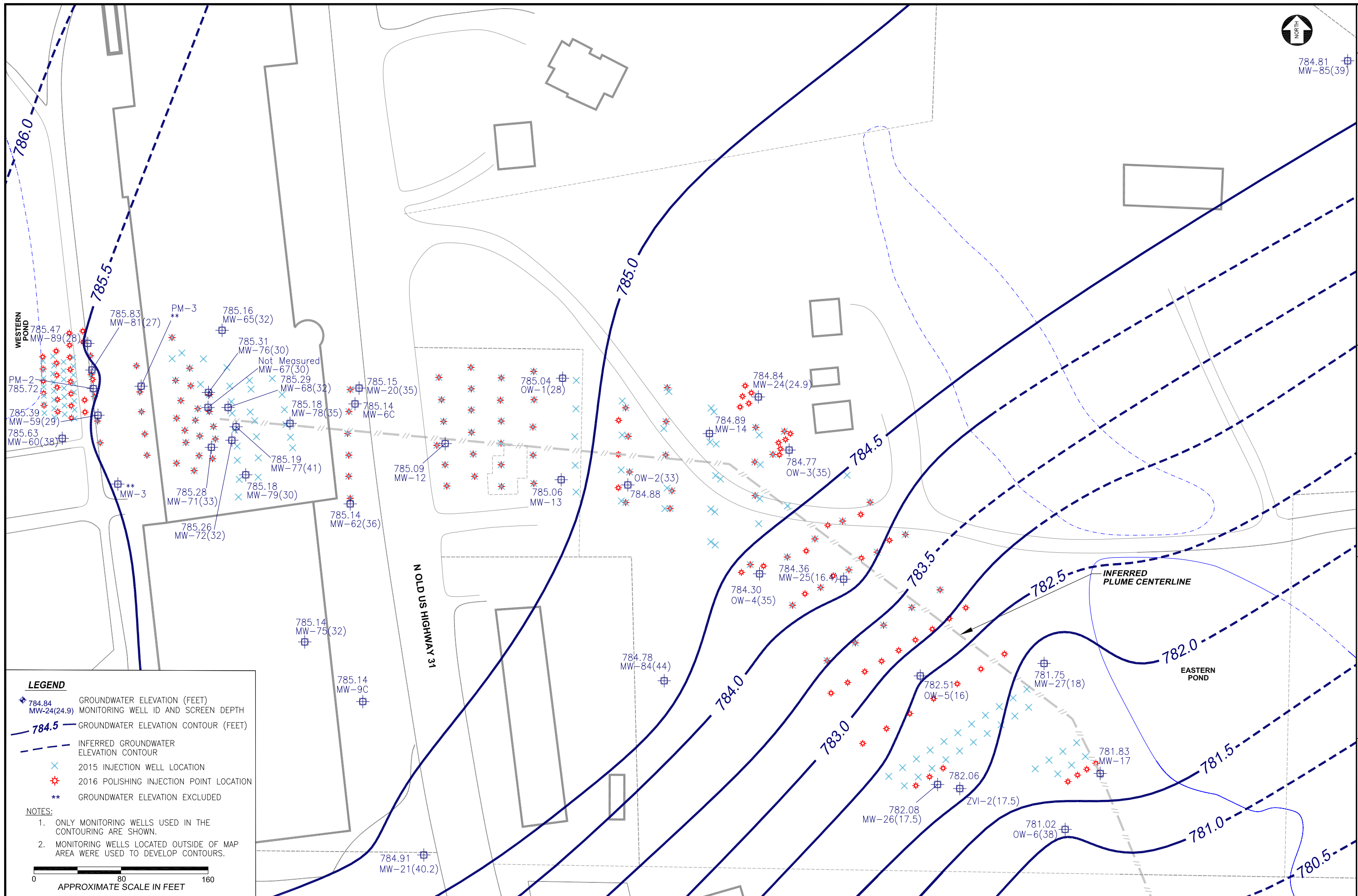
amec foster wheeler

SOURCE AREA
POLISHING ABC-OLE
INJECTION POINTS

FIGURE

6

SHEET 1 of 1



LEGEND

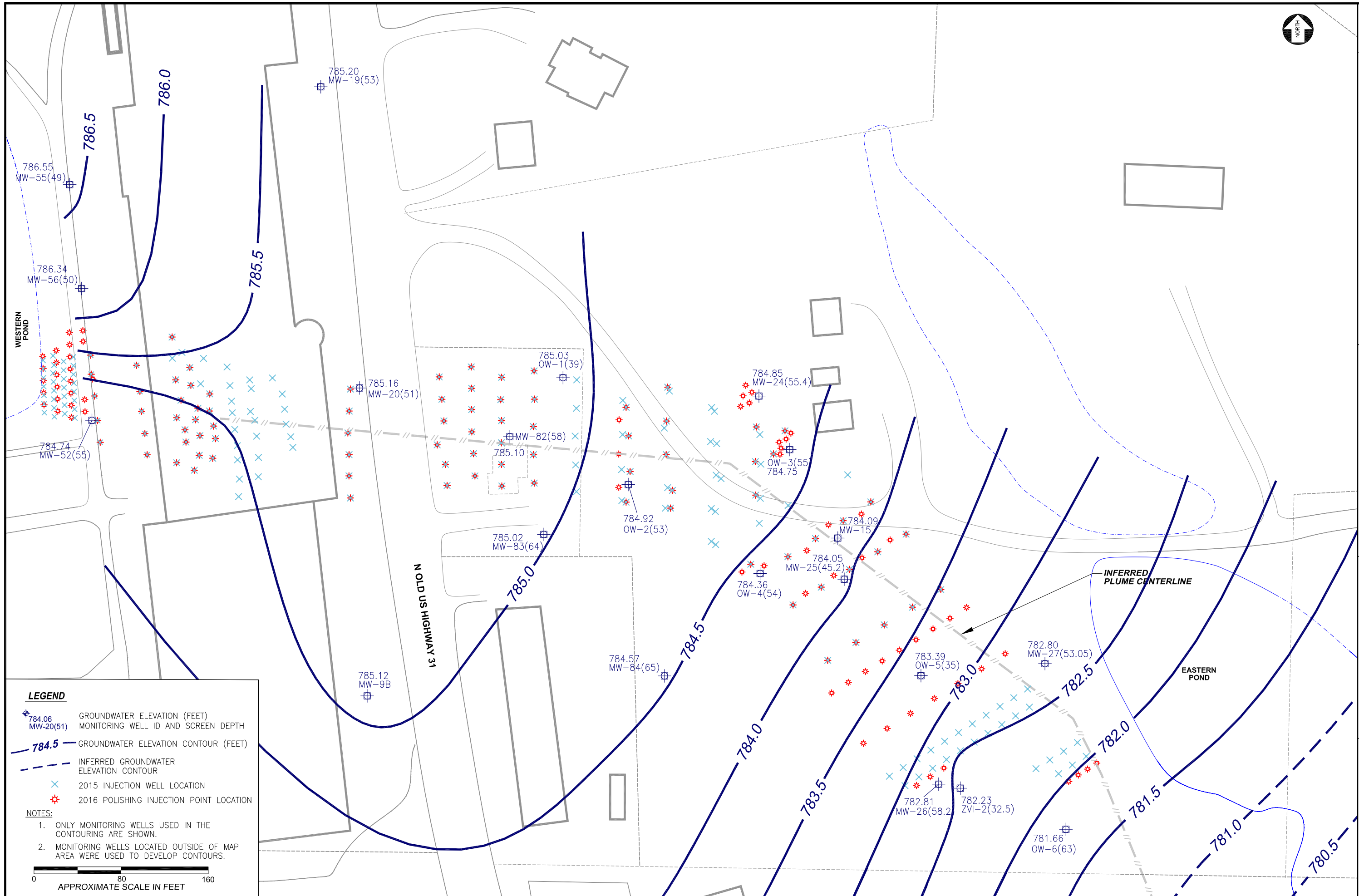
- ◆ 784.84
MW-24(24.9) GROUNDWATER ELEVATION (FEET)
MONITORING WELL ID AND SCREEN DEPTH
- 784.5 — GROUNDWATER ELEVATION CONTOUR (FEET)
- - - - - INFERRED GROUNDWATER ELEVATION CONTOUR
- × 2015 INJECTION WELL LOCATION
- ★ 2016 POLISHING INJECTION POINT LOCATION
- ** GROUNDWATER ELEVATION EXCLUDED

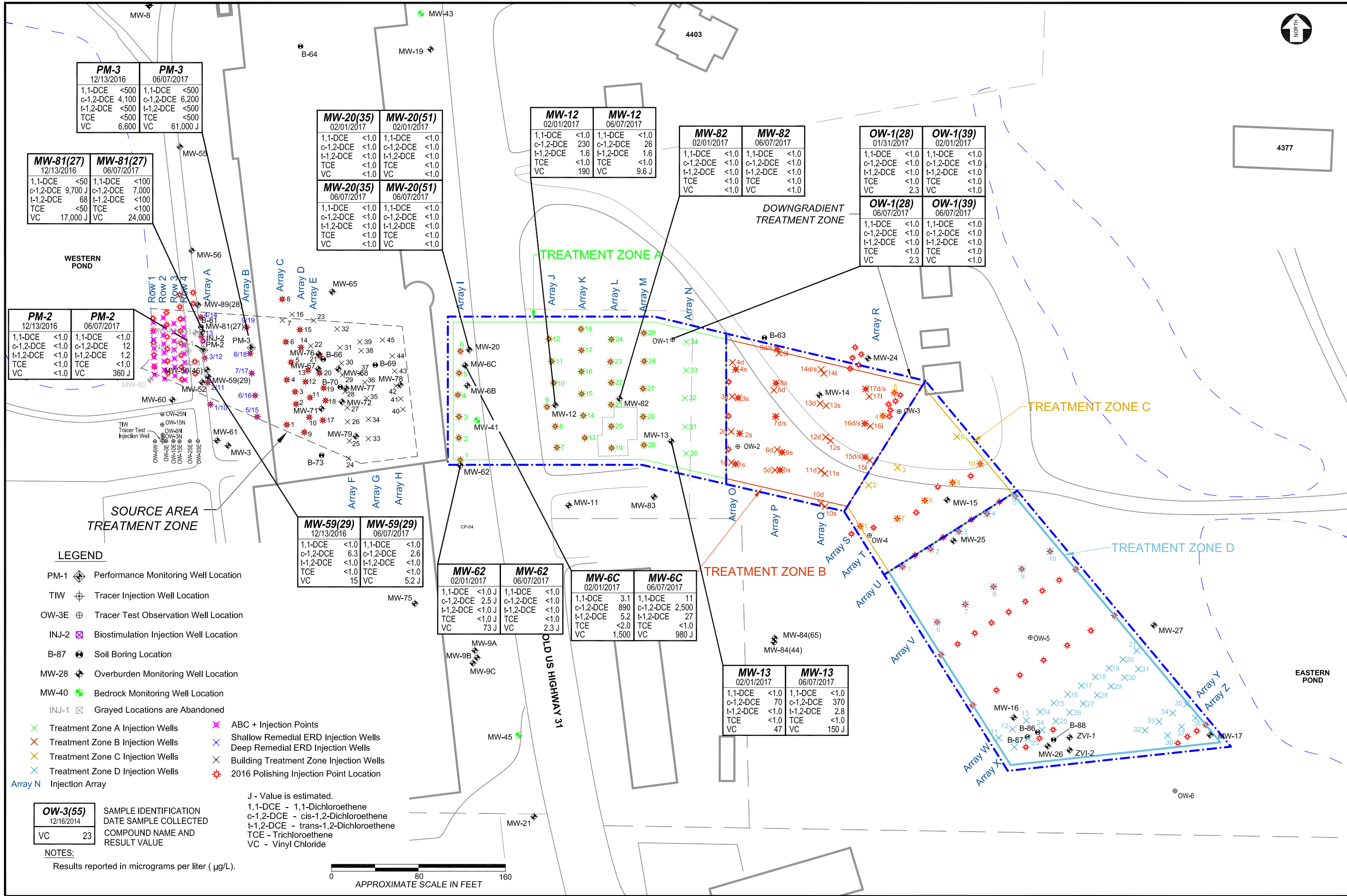
NOTES:

1. ONLY MONITORING WELLS USED IN THE CONTOURING ARE SHOWN.
2. MONITORING WELLS LOCATED OUTSIDE OF MAP AREA WERE USED TO DEVELOP CONTOURS.

0 80 160
APPROXIMATE SCALE IN FEET

784.81
MW-85(39)





PM-3	PM-3
12/13/2016	06/07/2017
1,1-DCE <500	1,1-DCE <500
c-1,2-DCE 4,100	c-1,2-DCE 6,200
t-1,2-DCE <500	t-1,2-DCE <500
TCE <500	TCE <500
VC 6,600	VC 61,000 J

MW-20(35)	MW-20(51)	MW-20(35)	MW-20(51)
02/01/2017	02/01/2017	06/07/2017	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE <1.0	c-1,2-DCE <1.0	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0	TCE <1.0	TCE <1.0
VC <1.0	VC <1.0	VC <1.0	VC <1.0

MW-12	MW-12
02/01/2017	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 230	c-1,2-DCE 26
t-1,2-DCE 1.6	t-1,2-DCE 1.6
TCE <1.0	TCE <1.0
VC 190	VC 9.6 J

MW-82	MW-82
02/01/2017	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC <1.0	VC <1.0

OW-1(28)	OW-1(39)	OW-1(28)	OW-1(39)
01/31/2017	02/01/2017	06/07/2017	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE <1.0	c-1,2-DCE <1.0	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0	TCE <1.0	TCE <1.0
VC 2.3	VC <1.0	VC 2.3	VC <1.0

MW-81(27)	MW-81(27)
12/13/2016	06/07/2017
1,1-DCE <50	1,1-DCE <100
c-1,2-DCE 9,700 J	c-1,2-DCE 7,000
t-1,2-DCE 68	t-1,2-DCE <100
TCE <50	TCE <100
VC 17,000 J	VC 24,000

PM-2	PM-2
12/13/2016	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE 12
t-1,2-DCE <1.0	t-1,2-DCE 1.2
TCE <1.0	TCE <1.0
VC <1.0	VC 360 J

MW-59(29)	MW-59(29)
12/13/2016	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 6.3	c-1,2-DCE 2.6
t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC 15	VC 5.2 J

MW-62	MW-62
02/01/2017	06/07/2017
1,1-DCE <1.0 J	1,1-DCE <1.0
c-1,2-DCE 2.5 J	c-1,2-DCE <1.0
t-1,2-DCE <1.0 J	t-1,2-DCE <1.0
TCE <1.0 J	TCE <1.0
VC 73 J	VC 2.3 J

MW-6C	MW-6C
02/01/2017	06/07/2017
1,1-DCE 3.1	1,1-DCE 11
c-1,2-DCE 890	c-1,2-DCE 2,500
t-1,2-DCE 5.2	t-1,2-DCE 27
TCE <2.0	TCE <1.0
VC 1,500	VC 980 J

MW-13	MW-13
02/01/2017	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 70	c-1,2-DCE 370
t-1,2-DCE <1.0	t-1,2-DCE 2.8
TCE <1.0	TCE <1.0
VC 47	VC 150 J

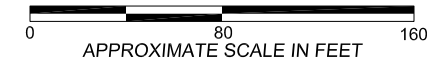
LEGEND

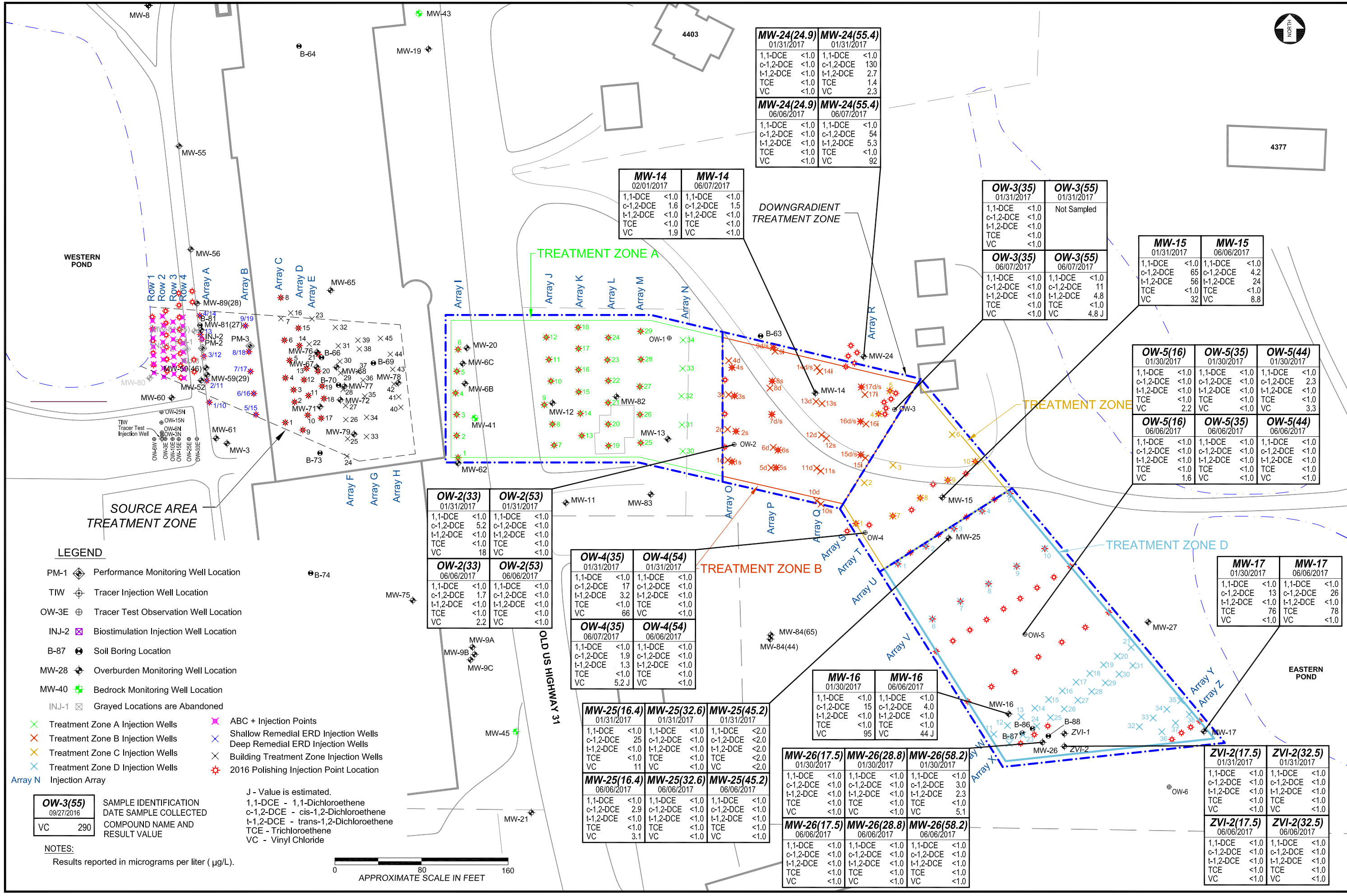
- PM-1 Performance Monitoring Well Location
- TIW Tracer Injection Well Location
- OW-3E Tracer Test Observation Well Location
- INJ-2 Biostimulation Injection Well Location
- B-87 Soil Boring Location
- MW-28 Overburden Monitoring Well Location
- MW-40 Bedrock Monitoring Well Location
- INJ-1 Grayed Locations are Abandoned
- Treatment Zone A Injection Wells
- Treatment Zone B Injection Wells
- Treatment Zone C Injection Wells
- Treatment Zone D Injection Wells
- Injection Array
- ABC + Injection Points
- Shallow Remedial ERD Injection Wells
- Deep Remedial ERD Injection Wells
- Building Treatment Zone Injection Wells
- 2016 Polishing Injection Point Location

OW-3(55)	SAMPLE IDENTIFICATION
12/16/2014	DATE SAMPLE COLLECTED
VC 23	COMPOUND NAME AND RESULT VALUE

J - Value is estimated.
 1,1-DCE - 1,1-Dichloroethene
 c-1,2-DCE - cis-1,2-Dichloroethene
 t-1,2-DCE - trans-1,2-Dichloroethene
 TCE - Trichloroethene
 VC - Vinyl Chloride

NOTES:
 Results reported in micrograms per liter (µg/L).





MW-24(24.9)	MW-24(55.4)
01/31/2017	01/31/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE 130
t-1,2-DCE <1.0	t-1,2-DCE 2.7
TCE <1.0	TCE 1.4
VC <1.0	VC 2.3
MW-24(24.9)	MW-24(55.4)
06/06/2017	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE 54
t-1,2-DCE <1.0	t-1,2-DCE 5.3
TCE <1.0	TCE <1.0
VC <1.0	VC 92

MW-14	MW-14
02/01/2017	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 1.6	c-1,2-DCE 1.5
t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC 1.9	VC <1.0

OW-3(35)	OW-3(55)
01/31/2017	01/31/2017
1,1-DCE <1.0	Not Sampled
c-1,2-DCE <1.0	
t-1,2-DCE <1.0	
TCE <1.0	
VC <1.0	
OW-3(35)	OW-3(55)
06/07/2017	06/07/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE 11
t-1,2-DCE <1.0	t-1,2-DCE 4.8
TCE <1.0	TCE <1.0
VC <1.0	VC 4.8 J

MW-15	MW-15
01/31/2017	06/06/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 65	c-1,2-DCE 4.2
t-1,2-DCE 56	t-1,2-DCE 24
TCE <1.0	TCE <1.0
VC 32	VC 8.8

OW-5(16)	OW-5(35)	OW-5(44)
01/30/2017	01/30/2017	01/30/2017
1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE <1.0	c-1,2-DCE 2.3
t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0	TCE <1.0
VC 2.2	VC <1.0	VC 3.3
OW-5(16)	OW-5(35)	OW-5(44)
06/06/2017	06/06/2017	06/06/2017
1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE <1.0	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0	TCE <1.0
VC 1.6	VC <1.0	VC <1.0

OW-2(33)	OW-2(53)
01/31/2017	01/31/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 5.2	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC 18	VC <1.0
OW-2(33)	OW-2(53)
06/06/2017	06/06/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 1.7	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC 2.2	VC <1.0

OW-4(35)	OW-4(54)
01/31/2017	01/31/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 17	c-1,2-DCE <1.0
t-1,2-DCE 3.2	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC 66	VC <1.0
OW-4(35)	OW-4(54)
06/07/2017	06/06/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 1.9	c-1,2-DCE <1.0
t-1,2-DCE 1.3	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC 5.2 J	VC <1.0

MW-16	MW-16
01/30/2017	06/06/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 15	c-1,2-DCE 4.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC 95	VC 44 J

MW-25(16.4)	MW-25(32.6)	MW-25(45.2)
01/31/2017	01/31/2017	01/31/2017
1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <2.0
c-1,2-DCE 25	c-1,2-DCE <1.0	c-1,2-DCE <2.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE <2.0
TCE <1.0	TCE <1.0	TCE <2.0
VC 11	VC <1.0	VC <2.0
MW-25(16.4)	MW-25(32.6)	MW-25(45.2)
06/06/2017	06/06/2017	06/06/2017
1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE 2.9	c-1,2-DCE <1.0	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0	TCE <1.0
VC 3.1	VC <1.0	VC <1.0

MW-26(17.5)	MW-26(28.8)	MW-26(58.2)
01/30/2017	01/30/2017	01/30/2017
1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE <1.0	c-1,2-DCE 3.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE 2.3
TCE <1.0	TCE <1.0	TCE <1.0
VC <1.0	VC <1.0	VC 5.1
MW-26(17.5)	MW-26(28.8)	MW-26(58.2)
06/06/2017	06/06/2017	06/06/2017
1,1-DCE <1.0	1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE <1.0	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0	TCE <1.0
VC <1.0	VC <1.0	VC <1.0

ZVI-2(17.5)	ZVI-2(32.5)
01/31/2017	01/31/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC <1.0	VC <1.0
ZVI-2(17.5)	ZVI-2(32.5)
06/06/2017	06/06/2017
1,1-DCE <1.0	1,1-DCE <1.0
c-1,2-DCE <1.0	c-1,2-DCE <1.0
t-1,2-DCE <1.0	t-1,2-DCE <1.0
TCE <1.0	TCE <1.0
VC <1.0	VC <1.0

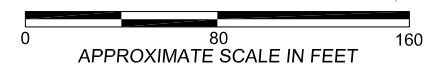
LEGEND

- PM-1 Performance Monitoring Well Location
- TIW Tracer Injection Well Location
- OW-3E Tracer Test Observation Well Location
- INJ-2 Biostimulation Injection Well Location
- B-87 Soil Boring Location
- MW-28 Overburden Monitoring Well Location
- MW-40 Bedrock Monitoring Well Location
- INJ-1 Grayed Locations are Abandoned
- Treatment Zone A Injection Wells
- Treatment Zone B Injection Wells
- Treatment Zone C Injection Wells
- Treatment Zone D Injection Wells
- Array N Injection Array
- ABC + Injection Points
- Shallow Remedial ERD Injection Wells
- Deep Remedial ERD Injection Wells
- Building Treatment Zone Injection Wells
- 2016 Polishing Injection Point Location

OW-3(55)	SAMPLE IDENTIFICATION
09/27/2016	DATE SAMPLE COLLECTED
VC	COMPOUND NAME AND RESULT VALUE
290	

J - Value is estimated.
 1,1-DCE - 1,1-Dichloroethene
 c-1,2-DCE - cis-1,2-Dichloroethene
 t-1,2-DCE - trans-1,2-Dichloroethene
 TCE - Trichloroethene
 VC - Vinyl Chloride

NOTES:
 Results reported in micrograms per liter (µg/L).





WESTERN POND

MW-76		MW-76	
12/14/2016		06/08/2017	
1,1-DCE	<50	1,1-DCE	<50
c-1,2-DCE	4,900	c-1,2-DCE	630
t-1,2-DCE	<50	t-1,2-DCE	<50
TCE	<50	TCE	<50
VC	13,000	VC	11,000

MW-68		MW-68	
12/13/2016		06/08/2017	
1,1-DCE	<5.0	1,1-DCE	<2.0
c-1,2-DCE	130	c-1,2-DCE	66
t-1,2-DCE	<5.0	t-1,2-DCE	<2.0
TCE	<5.0	TCE	<2.0
VC	2,400	VC	540

MW-78		MW-78	
12/14/2016		06/08/2017	
1,1-DCE	<1.0	1,1-DCE	<1.0
c-1,2-DCE	<1.0	c-1,2-DCE	<1.0
t-1,2-DCE	<1.0	t-1,2-DCE	<1.0
TCE	<1.0	TCE	<1.0
VC	<1.0	VC	<1.0

MW-67		MW-67	
12/12/2016		06/08/2017	
1,1-DCE	<1.0	1,1-DCE	<1.0
c-1,2-DCE	18	c-1,2-DCE	16
t-1,2-DCE	<1.0	t-1,2-DCE	<1.0
TCE	<1.0	TCE	<1.0
VC	10	VC	57 J

MW-71		MW-71	
12/12/2016		06/08/2017	
1,1-DCE	<1.0	1,1-DCE	<1.0
c-1,2-DCE	8.7	c-1,2-DCE	11
t-1,2-DCE	<1.0	t-1,2-DCE	<1.0
TCE	<1.0	TCE	<1.0
VC	270	VC	460 J

MW-72		MW-72	
12/13/2016		06/08/2017	
1,1-DCE	<1.0	1,1-DCE	<1.0
c-1,2-DCE	10	c-1,2-DCE	8.8
t-1,2-DCE	<1.0	t-1,2-DCE	<1.0
TCE	<1.0	TCE	<1.0
VC	31	VC	6.5

MW-77		MW-77	
12/14/2016		06/08/2017	
1,1-DCE	<1.0	1,1-DCE	<1.0
c-1,2-DCE	4.5	c-1,2-DCE	2.9
t-1,2-DCE	<1.0	t-1,2-DCE	<1.0
TCE	<1.0	TCE	<1.0
VC	17	VC	53

LEGEND

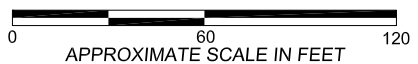
- PM-1 Performance Monitoring Well Location
- INJ-2 Biostimulation Injection Well Location
- B-87 Soil Boring Location
- MW-28 Overburden Monitoring Well Location
- MW-40 Bedrock Monitoring Well Location
- INJ-1 Grayed Locations are Abandoned
- Treatment Zone A Injection Wells
- ABC + Injection Points
- Shallow Remedial ERD Injection Wells
- Deep Remedial ERD Injection Wells
- Building Treatment Zone Injection Wells
- 2016 Polishing Injection Point Location

OW-3(55)	09/29/2016
VC	240

SAMPLE IDENTIFICATION
DATE SAMPLE COLLECTED
COMPOUND NAME AND
RESULT VALUE

J - Value is estimated.
1,1-DCE - 1,1-Dichloroethene
c-1,2-DCE - cis-1,2-Dichloroethene
t-1,2-DCE - trans-1,2-Dichloroethene
TCE - Trichloroethene
VC - Vinyl Chloride

NOTES:
Results reported in micrograms per liter (µg/L).



DRAWN BY RLB	P:\Textron\TFS\ Drawings\Perf Mon 2015.dwg	FILE NO.	
APPROVED BY PJS	11/29/2017	DATE	
SOURCE Wells surveyed by Territorial Engineering, Fulton County, IN GIS, 2005.			
PROJECT NO. 3359 15 1040	SCALE SEE ABOVE		

TORX FACILITY
4366 NORTH OLD US HIGHWAY 31
ROCHESTER, INDIANA



**PERFORMANCE MONITORING
VOLATILE ORGANIC
COMPOUNDS
SOURCE AREA
INSIDE/BENEATH BUILDING**



Textron, Inc.
TORX Facility Remediation
Report of Performance Monitoring

APPENDIX A

GROUNDWATER SAMPLE COLLECTION FIELD FORMS

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 81(27)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAM Date 6-7-2017 Start Time 0950 Weather clear, 71°

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 12.56 Depth to Product Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 0956 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1000</u>	<u>6.56</u>	<u>1201</u>	<u>14.70</u>	<u>2.3</u>	<u>180</u>	<u>13.49</u>	<u>0.93</u>	<u>2.83</u>	<u>-11.7</u>
<u>1005</u>	<u>6.14</u>	<u>1187</u>	<u>14.73</u>	<u>-0.3</u>	<u>180</u>	<u>13.27</u>	<u>0.71</u>	<u>2.81</u>	<u>-51.2</u>
<u>1010</u>	<u>6.06</u>	<u>1182</u>	<u>14.82</u>	<u>-0.1</u>	<u>200</u>	<u>13.20</u>	<u>0.69</u>	<u>2.60</u>	<u>-59.1</u>
<u>1015</u>	<u>6.01</u>	<u>1177</u>	<u>14.81</u>	<u>0.0</u>	<u>200</u>	<u>13.23</u>	<u>0.67</u>	<u>0.52</u>	<u>-64.8</u>
<u>1020</u>	<u>6.00</u>	<u>1178</u>	<u>14.84</u>	<u>-0.5</u>	<u>200</u>	<u>13.20</u>	<u>0.64</u>	<u>0.46</u>	<u>-67.4</u>
<u>1025</u>	<u>5.97</u>	<u>1167</u>	<u>14.86</u>	<u>-0.6</u>	<u>200</u>	<u>13.22</u>	<u>0.66</u>	<u>0.42</u>	<u>-70.2</u>
<u>1030</u>	<u>5.96</u>	<u>1162</u>	<u>14.88</u>	<u>-0.9</u>	<u>200</u>	<u>13.22</u>	<u>0.66</u>	<u>0.41</u>	<u>-72.8</u>

Stabilization Criteria: ±3% ±3% ±10 ±10%

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1030</u>	<u>5.96</u>	<u>1162</u>	<u>14.88</u>	<u>-0.9</u>	<u>200</u>	<u>13.22</u>	<u>0.66</u>	<u>0.41</u>	<u>-72.8</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.126.0 NTUs

Sample Name ATR-MW 81(27)-6060717 Time 1035 Bottle Type: _____

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative	G = Glass P = Poly Preservative Codes: 1 = HCL 4 = NaOH 2 = HNO ₃ 5 = BAC 3 = H ₂ SO ₄ 6 = Na ₃ PO ₄
VOCs <input checked="" type="checkbox"/>	_____	_____	Dissolved Gasses <input checked="" type="checkbox"/>	_____	
TOC + NO ₃ <input checked="" type="checkbox"/>	_____	_____	VFA <input checked="" type="checkbox"/>	_____	
Fe/Mn <input checked="" type="checkbox"/>	_____	_____	DHC <input checked="" type="checkbox"/>	_____	
Other: <input type="checkbox"/>	_____	_____	Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	_____	
Other: <input type="checkbox"/>	_____	_____	Other: <input type="checkbox"/>	_____	

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW59(29)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel LH Date _____ Start Time 1315 Weather _____

MEASUREMENT SUMMARY:
Measuring Point TOC Depth to Water 14.07 Depth to Product _____ Product Thickness _____
Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 20 Feet
Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
Pump Started 1318 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1320</u>	<u>6.11</u>	<u>1319</u>	<u>15.06</u>	<u>0.6</u>	<u>240</u>	<u>14.18</u>	<u>0.11</u>	<u>0.62</u>	<u>-26.0</u>
<u>1325</u>	<u>6.10</u>	<u>1319</u>	<u>15.40</u>	<u>0.3</u>	<u>240</u>	<u>14.19</u>	<u>0.12</u>	<u>0.59</u>	<u>-31.9</u>
<u>1330</u>	<u>6.11</u>	<u>1340</u>	<u>15.17</u>	<u>-0.2</u>	<u>240</u>	<u>14.18</u>	<u>0.11</u>	<u>0.44</u>	<u>-52.2</u>
<u>1335</u>	<u>6.08</u>	<u>1346</u>	<u>15.15</u>	<u>0.2</u>	<u>240</u>	<u>14.18</u>	<u>0.11</u>	<u>0.40</u>	<u>-58.6</u>
<u>1340</u>	<u>6.07</u>	<u>1350</u>	<u>15.16</u>	<u>0.0</u>	<u>240</u>	<u>14.18</u>	<u>6.11</u>	<u>0.37</u>	<u>-52.4</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Stabilization Criteria: ±3% ±3% ±10 ±10

Final:
Time pH SC Temp Turb. Flow Rate DTW Drawdown DO ORP

Comments: Replicate ATR-MW59(29)-G060717R obtained

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.126.0 NTUs

Sample Name ATR-MW 59(29)-G060717 Time 1345

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	_____	_____	Dissolved Gasses <input checked="" type="checkbox"/>	_____
TOC + NO ₃ <input checked="" type="checkbox"/>	_____	_____	VFA <input checked="" type="checkbox"/>	_____
Fe/Mn <input checked="" type="checkbox"/>	_____	_____	DHC <input checked="" type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____	_____	Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____	_____	Other: <input type="checkbox"/>	_____

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type: G = Glass P = Poly
Preservative Codes: 1 = HCL 4 = NaOH 2 = HNO₃ 5 = BAC 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 2
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAM Date 6-7-17 Start Time 1420 Weather clear, 78°F

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 12.69 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 20 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1424 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
1430	6.37	854	14.83	36.9	240	12.82	0.13	1.03	-20.1
1435	6.30	897	14.49	41.6	240	12.87	0.18	0.60	-50.7
1440	6.32	893	14.69	40.7	240	12.89	0.20	0.49	-69.2
1445	6.32	910	14.63	45.4	240	12.87	0.18	0.43	-76.1
1455	6.29	919	14.51	18.0	240	12.88	0.19	0.35	-86.1
1500	6.29	931	14.60	16.1	240	12.88	0.19	0.35	-87.1
1505	6.28	938	14.45	7.0	240	12.89	0.20	0.34	-88.6
1510	6.27	947	14.47	6.4	240	12.88	0.19	0.33	-89.3

Stabilization Criteria: pH ±3% Temp ±3% Turb. ±10 DO ±10% ORP ±10

Final:

Time 1510 pH 6.27 SC 947 Temp 14.47 Turb. 6.4 Flow Rate 240 DTW 12.88 Drawdown 0.19 DO 0.33 ORP -89.3

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0 126.0 NTUs

Sample Name ATR-MW - 6060717 Time 1515 Bottle Type: _____

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	_____	_____	Dissolved Gasses <input checked="" type="checkbox"/>	_____
TOC + NO ₃ <input checked="" type="checkbox"/>	_____	_____	VFA <input checked="" type="checkbox"/>	_____
Fe/Mn <input checked="" type="checkbox"/>	_____	_____	DHC <input checked="" type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____	_____	Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____	_____	Other: <input type="checkbox"/>	_____

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
G = Glass
P = Poly

Preservative Codes:
1 = HCL 4 = NaOH
2 = HNO₃ 5 = BAC
3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW3^{PM}
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAM Date 6-7-17 Start Time 1540 Weather clear 80°F

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 23.06 Depth to Product — Product Thickness —
 Total Casing Depth — Borehole Diameter — Approx. Pump Depth 30 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1543 Pump Stopped — Total Gallons —

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
1550	4.76	2169	15.30	70.1	200	23.29	0.23	0.74	89.0
1555	4.75	2172	15.43	75.9	200	23.26	0.20	0.63	85.0
1600	4.76	2103	15.45	119.3	200	23.26	0.20	0.48	75.8
1605	4.75	2024	15.39	156.5	200	23.31	0.25	0.34	70.1
1610	4.72	1915	14.61	104.8	200	23.29	0.23	0.33	69.3
1615	4.71	1752	14.70	103.6	200	23.29	0.23	0.30	69.1
1620	4.70	1710	14.80	105.7	200	23.28	0.22	0.28	68.1
1625	4.69	1742	14.75	109.6	200	23.29	0.23	0.28	67.6
1630	4.66	1728	14.69	113.2	200	23.29	0.23	0.27	66.7
1635	4.66	1717	14.71	109.7	200	23.26	0.20	0.26	66.2

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1635 pH 4.66 SC 1717 Temp 14.71 Turb. 109.7 Flow Rate 200 DTW 23.26 Drawdown 0.20 DO 0.26 ORP 66.2

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.1260 NTUs

Sample Name ATR-MW PM3-6060717 Time 1640

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3/G</u>	_____	Dissolved Gasses <input checked="" type="checkbox"/>	_____
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1</u>	_____	VFA <input checked="" type="checkbox"/>	_____
Fe/Mn <input checked="" type="checkbox"/>	<u>1</u>	_____	DHC <input checked="" type="checkbox"/>	_____
		Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>		_____

Other: _____ Other: _____

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type: G = Glass, P = Poly

Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-~~W~~FB001
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel Lithegardme Date 6-8-17 Start Time 1515 Weather _____

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water _____ Depth to Product _____ Product Thickness _____
Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started _____ Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
Time _____ pH _____ SC _____ Temp _____ Turb. _____ Flow Rate _____ DTW _____ Drawdown _____ DO _____ ORP _____

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
SC Reference Solution 4149 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-~~W~~FB001-61060817 Time 1520 Bottle Type: _____
Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
VOCs 301 1 Dissolved Gasses _____
TOC + NO₃ _____ VFA _____
Fe/Mn _____ DHC _____
Alkalinity + Anions (Cl-, SO₄) _____
Other: _____ Other: _____
MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
G = Glass
P = Poly
Preservative Codes:
1 = HCL 4 = NaOH
2 = HNO₃ 5 = BAC
3 = H₂SO₄ 6 = Na₃PO₄



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 67
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SP Date 6-8-17 Start Time 1355 Weather INDOORS

MEASUREMENT SUMMARY:
 Measuring Point JOC Depth to Water 24.25 Depth to Product _____ Product Thickness _____
 Total Casing Depth 30 Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailer

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1404</u>	<u>6.61</u>	<u>1453</u>	<u>18.73</u>	<u>2610</u>				<u>2.08</u>	<u>-728</u>
<u>1414</u>	<u>6.52</u>	<u>1510</u>	<u>18.07</u>	<u>5450</u>				<u>2.54</u>	<u>-571</u>
<u>1424</u>	<u>6.50</u>	<u>10504</u>	<u>17.88</u>	<u>8010</u>				<u>2.85</u>	<u>-501.5</u>

Gal
1
2
3

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:	Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP

Comments: 3PV = 3gal

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 248 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW 67-6060817 Time 1430

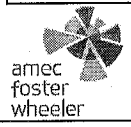
Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>36</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u> <u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>10</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>
			Alkalinity + Anions (Cl-, SO4) <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly

Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 68
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SP Date 6-8-17 Start Time 1140 Weather _____

MEASUREMENT SUMMARY:
 Measuring Point 70C Depth to Water 24.20 Depth to Product _____ Product Thickness _____
 Total Casing Depth 32.31 Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1150</u>	<u>6.48</u>	<u>1.632</u>	<u>18.72</u>	<u>0.74</u>	_____	_____	_____	<u>3.43</u>	<u>-68.6</u>
<u>1205</u>	<u>6.08</u>	<u>1.699</u>	<u>19.01</u>	<u>1.96</u>	_____	_____	_____	<u>3.66</u>	<u>-68.6</u>
<u>1205</u>	<u>6.58</u>	<u>1.748</u>	<u>16.75</u>	<u>1.63</u>	_____	_____	_____	<u>3.81</u>	<u>-52.7</u>

Gen 1
1.5
2.5
3.5

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1205 pH 6.58 SC 1.748 Temp 16.75 Turb. 1.63 Flow Rate _____ DTW _____ Drawdown _____ DO 3.81 ORP -52.7

Comments: 3PI = 3.5 gal

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.149 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW 68 - 6060817 Time 1205 Bottle Type: _____
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs 367 1 Dissolved Gasses 36 6
 TOC + NO₃ 1P 3 VFA 2P 5
 Fe/Mn 1P 2 DHC 1P 0
 Alkalinity + Anions (Cl-, SO₄) 1P 0
 Other: _____ Other: _____
 MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type: G = Glass P = Poly
 Preservative Codes: 1 = HCL 4 = NaOH 2 = HNO₃ 5 = BAC 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 71-6060817
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SP Date 6-8-17 Start Time 1240 Weather _____

MEASUREMENT SUMMARY:
 Measuring Point JOC Depth to Water 23.90 Depth to Product _____ Product Thickness _____
 Total Casing Depth 33 Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started _____ Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1252</u>	<u>6.36</u>	<u>0.945</u>	<u>18.25</u>	<u>70.4</u>				<u>2.72</u>	<u>-52.1</u>
<u>1300</u>	<u>6.44</u>	<u>1.935</u>	<u>17.74</u>	<u>99.9</u>				<u>3.05</u>	<u>-60.7</u>
<u>1307</u>	<u>6.34</u>	<u>2.117</u>	<u>17.53</u>	<u>133.8</u>				<u>3.33</u>	<u>-54.0</u>
<u>1314</u>	<u>6.15</u>	<u>2.360</u>	<u>17.36</u>	<u>145.8</u>				<u>3.03</u>	<u>-45.5</u>

6.1
 1.5
 2.5
 3.5
 4.5

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1314 pH 6.15 SC 2.360 Temp 17.36 Turb. 145.8 Flow Rate _____ DTW _____ Drawdown _____ DO 3.03 ORP -45.5

Comments: SPV @ 4.5

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.049 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW 71-6060817 Time 1315 Bottle Type:
 Analyses (check) Bottle #/Type Preservative G = Glass
 VOCs 362 1 Dissolved Gasses 362 6 P = Poly
 TOC + NO₃ 1P 3 VFA 26 5 Preservative Codes:
 Fe/Mn 1P 2 DHC 1P 0 1 = HCL 4 = NaOH
 Alkalinity + Anions (Cl-, SO₄) 1P 0 2 = HNO₃ 5 = BAC
 Other: _____ Other: _____ 3 = H₂SO₄ 6 = Na₃PO₄
 MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water [] Groundwater [x] Sample ID ATR-MW EB001
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel SP Date 6-8-17 Start Time Weather

MEASUREMENT SUMMARY:

Measuring Point Depth to Water Depth to Product Product Thickness
Total Casing Depth Borehole Diameter Approx. Pump Depth Feet
Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab [] Composite [] Grundfos [] Bladder Pump [] Peristaltic Pump [] Bailor []

Pump Started Pump Stopped Total Gallons

Table with 10 columns: Time (24-hr), pH (S.U.), SC (mS/cm), Temp (C), Turb. (NTU), Flow Rate (ml/min), DTW (ft), Drawdown (ft), DO (mg/L), ORP (mV). Contains multiple rows of blank data lines.

Stabilization Criteria: ±3% ±3% ±10 ±10%

Final:

Time pH SC Temp Turb. Flow Rate DTW Drawdown DO ORP

Comments: Collected from disposable bailor prior to use in MW-72

Calibration: pH Calibration Buffers: 4 [] 7 [] 10 [] ORP Calibration mV
SC Reference Solution mS/cm Turbidity Cal. Solution NTUs

Sample Name ATR-MW EB001-6060817 Time 0955
Analyses (check) Bottle #/Type Preservative
VOCs [x] 36 1 Dissolved Gasses []
TOC + NO3 [] VFA []
Fe/Mn [] DHC []
Alkalinity + Anions (Cl-, SO4) []
Other: [] Other: []
MS/MSD Blind Dup Blind Dup Name TB

- Bottle Type: G = Glass P = Poly
Preservative Codes: 1 = HCL 4 = NaOH 2 = HNO3 5 = BAC 3 = H2SO4 6 = Na3PO4



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW72
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 6-8-17 Start Time 1005 Weather _____

MEASUREMENT SUMMARY:

Measuring Point ROC Depth to Water 23.75 Depth to Product _____ Product Thickness _____
 Total Casing Depth 32 Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started _____ Pump Stopped _____ Total Gallons _____

Gal
1
2
3
4

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1021</u>	<u>6.41</u>	<u>1.856</u>	<u>19.01</u>	<u>149.6</u>	_____	_____	_____	<u>8.10</u>	<u>82.3</u>
<u>1035</u>	<u>6.65</u>	<u>2.072</u>	<u>19.17</u>	<u>331.1</u>	_____	_____	_____	<u>4.10</u>	<u>-56.4</u>
<u>1044</u>	<u>6.43</u>	<u>2.238</u>	<u>17.71</u>	<u>437.9</u>	_____	_____	_____	<u>4.30</u>	<u>-55.7</u>
<u>1051</u>	<u>6.22</u>	<u>2.496</u>	<u>17.66</u>	<u>614.4</u>	_____	_____	_____	<u>4.40</u>	<u>-55.7</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time 1053 pH 6.22 SC 2.496 Temp 17.66 Turb. 614.4 Flow Rate _____ DTW _____ Drawdown _____ DO 4.40 ORP -55.7

Comments: 3PV = 4 gal

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW 72-6060817 Time 1105 Bottle Type: _____

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative	G = Glass P = Poly Preservative Codes: 1 = HCL 4 = NaOH 2 = HNO3 5 = BAC 3 = H2SO4 6 = Na3PO4
VOCs <input checked="" type="checkbox"/>	<u>361</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>361</u> <u>6</u>	
TOC + NO3 <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>261</u> <u>5</u>	
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>	
Other: <input type="checkbox"/>	_____	_____	Alkalinity + Anions (Cl-, SO4) <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>	
Other: <input type="checkbox"/>	_____	_____	Other: <input type="checkbox"/>	_____	

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW-76
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel L. Hinegardner Date 6-8-17 Start Time 1235 Weather Indoor

MEASUREMENT SUMMARY:

Measuring Point JOC Depth to Water 23.97 Depth to Product --- Product Thickness ---
 Total Casing Depth 30. Borehole Diameter _____ Approx. Pump Depth 28.5 Feet
 Screen Interval top bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1305 Pump Stopped 1400 Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
1310	5.76	2.228	18.28	<1	250	23.97	0	1.06	-43.8
1315	5.61	2.391	18.07	<1	250	23.97	0	0.75	-38.9
1320	5.47	2.466	17.63	<1	250	23.97	0	0.61	-34.2
1325	5.36	2.422	17.44	<1	250	23.97	0	0.54	-28.8
1330	5.33	2.417	17.46	<1	250	23.97	0	0.52	-20.2
1335	5.29	2.412	17.43	<1	250	23.97	0	0.49	-17.5

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time 1335 pH 5.29 SC 2.412 Temp 17.43 Turb. <1 Flow Rate 250 DTW 23.97 Drawdown 0 DO 0.49 ORP -17.5

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.490 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW 76-61060817 Time 1340

Analyses (check) Bottle #/Type Preservative

VOCs 361 1 Dissolved Gasses 36 6

TOC + NO₃ 1P 3 VFA 26 5

Fe/Mn 1P 2 DHC 1P -

Alkalinity + Anions (Cl-, SO₄) 1P -

Bottle Type: G = Glass P = Poly

Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

Other: _____ Other: _____

MS/MSD ATR-MW 76-61060817 Blind Dup _____ Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW ^{EB002}
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel L. Hinegnandu Date 8-8-17 Start Time 1455 Weather Sunny, 74°F

MEASUREMENT SUMMARY:

Measuring Point TCE Depth to Water _____ Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started _____ Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final: Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP

Comments: * collected after MW-76 + TCE

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW ^{EB002-61060817} Time 1505

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>36</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u> <u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u> <u>-</u>
Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u>	<u>-</u>		

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

Other: Other:
 MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 77
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel L. H. ... Date 6-8-17 Start Time 0845 Weather INDOOR

MEASUREMENT SUMMARY:
 Measuring Point 70C Depth to Water 24.21 Depth to Product _____ Product Thickness _____
 Total Casing Depth 40. Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 0925 Pump Stopped 1020 Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>0930</u>	<u>6.58</u>	<u>0.459</u>	<u>18.45</u>	<u><1</u>	<u>250</u>	<u>24.24</u>	<u>0.03</u>	<u>1.20</u>	<u>-78.3</u>
<u>0935</u>	<u>6.61</u>	<u>0.459</u>	<u>18.02</u>	<u><1</u>	<u>250</u>	<u>24.24</u>	<u>0.03</u>	<u>1.06</u>	<u>-93.7</u>
<u>0940</u>	<u>6.63</u>	<u>0.460</u>	<u>17.47</u>	<u><1</u>	<u>250</u>	<u>24.24</u>	<u>0.03</u>	<u>0.74</u>	<u>-90.3</u>
<u>0945</u>	<u>6.67</u>	<u>0.463</u>	<u>17.38</u>	<u><1</u>	<u>250</u>	<u>24.24</u>	<u>0.03</u>	<u>0.69</u>	<u>-103.8</u>
<u>0950</u>	<u>6.64</u>	<u>0.461</u>	<u>17.37</u>	<u><1</u>	<u>250</u>	<u>24.24</u>	<u>0.03</u>	<u>0.63</u>	<u>-103.3</u>
<u>0955</u>	<u>6.63</u>	<u>0.456</u>	<u>17.33</u>	<u><1</u>	<u>250</u>	<u>24.24</u>	<u>0.03</u>	<u>0.80</u>	<u>-102.7</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 0955 pH 6.63 SC 0.456 Temp 17.33 Turb. <1 Flow Rate 250 DTW 24.24 Drawdown 0.03 DO 0.60 ORP -102.7

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.400 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW 77-6060817 Time 1000

Analyses (check)	Bottle #/Type	Preservative	Dissolved Gasses	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3G</u>	<u>1</u>	<input checked="" type="checkbox"/>	<u>3G</u>	<u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>2G</u>	<u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u>	<u>-</u>
			Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u>	<u>-</u>

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 78
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel L. Hingualme Date 6-8-17 Start Time 1045 Weather FIN/POOR

MEASUREMENT SUMMARY:
 Measuring Point 10C Depth to Water 24.18 Depth to Product --- Product Thickness ---
 Total Casing Depth 35. Borehole Diameter _____ Approx. Pump Depth 33 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1100 Pump Stopped 1210 Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1105</u>	<u>6.14</u>	<u>1.500</u>	<u>16.44</u>	<u><1</u>	<u>250</u>	<u>24.18</u>	<u>0</u>	<u>1.01</u>	<u>-41.0</u>
<u>1110</u>	<u>6.03</u>	<u>1.500</u>	<u>16.07</u>	<u><1</u>	<u>250</u>	<u>24.18</u>	<u>0</u>	<u>0.88</u>	<u>-31.4</u>
<u>1115</u>	<u>5.84</u>	<u>1.499</u>	<u>15.84</u>	<u><1</u>	<u>250</u>	<u>24.18</u>	<u>0</u>	<u>0.66</u>	<u>-29.6</u>
<u>1120</u>	<u>5.76</u>	<u>1.500</u>	<u>15.77</u>	<u><1</u>	<u>250</u>	<u>24.18</u>	<u>0</u>	<u>0.58</u>	<u>-24.4</u>
<u>1125</u>	<u>5.70</u>	<u>1.500</u>	<u>15.75</u>	<u><1</u>	<u>250</u>	<u>24.18</u>	<u>0</u>	<u>0.56</u>	<u>-22.1</u>
<u>1130</u>	<u>5.68</u>	<u>1.500</u>	<u>15.73</u>	<u><1</u>	<u>250</u>	<u>24.18</u>	<u>0</u>	<u>0.53</u>	<u>-20.3</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1130 pH 5.68 SC 1.500 Temp 15.73 Turb. <1 Flow Rate 250 DTW 24.18 Drawdown 0 DO 0.53 ORP -20.3

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.400 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW 78-67060817 Time 1135
 Bottle Type: G = Glass, P = Poly
 Analyses (check) Bottle #/Type Preservative
 VOCs 36 1 Dissolved Gasses 36 6
 TOC + NO₃ 1P 3 VFA 26 5
 Fe/Mn 1P 2 DHC 1P ---
 Alkalinity + Anions (Cl-, SO4) 1P ---
 Other: Other:

MS/MSD ATR-MW 78-67060817 Blind Dup _____ Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW PC
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel L. Honegarden Date 6-7-17 Start Time 1345 Weather Sunny 79°F

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 25.26 Depth to Product — Product Thickness —
 Total Casing Depth 36.28 Borehole Diameter — Approx. Pump Depth 30 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1410 Pump Stopped 1505 Total Gallons —

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1415</u>	<u>6.51</u>	<u>1.326</u>	<u>17.99</u>	<u><1</u>	<u>250</u>	<u>25.26</u>	<u>0</u>	<u>0.62</u>	<u>2.7</u>
<u>1420</u>	<u>6.41</u>	<u>1.329</u>	<u>17.81</u>	<u><1</u>	<u>250</u>	<u>25.26</u>	<u>0</u>	<u>0.73</u>	<u>-0.11</u>
<u>1425</u>	<u>6.27</u>	<u>1.330</u>	<u>17.56</u>	<u><1</u>	<u>250</u>	<u>25.26</u>	<u>0</u>	<u>0.56</u>	<u>-19.6</u>
<u>1430</u>	<u>6.21</u>	<u>1.332</u>	<u>17.44</u>	<u><1</u>	<u>250</u>	<u>25.26</u>	<u>0</u>	<u>0.51</u>	<u>-22.0</u>
<u>1435</u>	<u>6.18</u>	<u>1.330</u>	<u>17.43</u>	<u><1</u>	<u>250</u>	<u>25.26</u>	<u>0</u>	<u>0.49</u>	<u>-24.2</u>
<u>1440</u>	<u>6.15</u>	<u>1.327</u>	<u>17.41</u>	<u><1</u>	<u>250</u>	<u>25.26</u>	<u>0</u>	<u>0.47</u>	<u>-25.0</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time 1440 pH 6.15 SC 1.327 Temp 17.41 Turb. <1 Flow Rate 250 DTW 25.26 Drawdown 0 DO 0.47 ORP -25.0

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW PC-6060717 Time 1445

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>36</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u> <u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u> <u>—</u>
			Alkalinity + Anions (Cl-, SO4) <input checked="" type="checkbox"/>	<u>1P</u> <u>—</u>

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

Other: _____ Other: _____
 MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____



GROUNDWATER/SURFACE WATER SAMPLING FORM

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 12
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SP Date 6-7-17 Start Time 1400 Weather 75 Sunny

MEASUREMENT SUMMARY:
 Measuring Point JOC Depth to Water 23.35 Depth to Product _____ Product Thickness _____
 Total Casing Depth 26.98 Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started _____ Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP

Comments: 3PV = 2 gnl * Bailed dry @ 1 liter purged. Allow recovery

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW 12-6060717 Time 1420

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>36</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u> <u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>
			Alkalinity + Anions (Cl-, SO4) <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>
Other: <input type="checkbox"/>			Other: <input type="checkbox"/>	

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 13
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SP Date 6-7-12 Start Time 1440 Weather 75 Sunny

MEASUREMENT SUMMARY:
 Measuring Point TOP Depth to Water 21.61 Depth to Product _____ Product Thickness _____
 Total Casing Depth 27.81 Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started _____ Pump Stopped _____ Total Gallons _____

0291
1
2
3

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1450</u>	<u>7.21</u>	<u>0.964</u>	<u>15.62</u>	<u>178.3</u>	_____	_____	_____	<u>6.88</u>	<u>18.3</u>
<u>1455</u>	<u>7.02</u>	<u>0.953</u>	<u>15.11</u>	<u>184.7</u>	_____	_____	_____	<u>6.13</u>	<u>-82.2</u>
<u>1500</u>	<u>6.95</u>	<u>0.946</u>	<u>14.56</u>	<u>198.8</u>	_____	_____	_____	<u>6.04</u>	<u>-76.9</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1500 pH 6.95 SC 0.946 Temp 14.56 Turb. 198.8 Flow Rate _____ DTW _____ Drawdown _____ DO 6.04 ORP -76.9

Comments: 3PV = 3cp1

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW13-6060717 Time 1500

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>36</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u> <u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>
			Alkalinity + Anions (Cl-, SO4) <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>

Other: Other:

Bottle Type: G = Glass, P = Poly
 Preservative Codes: 1 = HCL, 4 = NaOH, 2 = HNO₃, 5 = BAC, 3 = H₂SO₄, 6 = Na₃PO₄

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____



GROUNDWATER/SURFACE WATER SAMPLING FORM

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW(62)(36)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel L. Hincay Date 6-2-17 Start Time 1510 Weather Sunny, 78°F

MEASUREMENT SUMMARY:
Measuring Point TOL Depth to Water 25.60 Depth to Product — Product Thickness —
Total Casing Depth 35.47 Borehole Diameter — Approx. Pump Depth 33 Feet
Screen Interval top bottom — Feet

SAMPLING SUMMARY:
Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
Pump Started 1525 Pump Stopped 1620 Total Gallons —

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
1530	6.03	1,334	16.63	<1	250	25.60	0	0.89	-84.6
1535	5.86	1,336	16.47	<1	250	25.60	0	0.63	-75.8
1540	5.74	1,339	16.34	<1	250	25.60	0	0.44	-61.9
1545	5.67	1,341	16.31	<1	250	25.60	0	0.44	-53.3
1550	5.63	1,343	16.26	<1	250	25.60	0	0.42	-52.7
1555	5.62	1,340	16.29	<1	250	25.60	0	0.39	-53.4

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
Time 1555 pH 5.62 SC 1,340 Temp 16.29 Turb. <1 Flow Rate 250 DTW 25.60 Drawdown 0 DO 0.39 ORP -53.4

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW(62)(36)-6060-717 Time 1600

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>36</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>267</u> <u>8</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u> <u>—</u>
			Alkalinity + Anions (Cl ⁻ , SO ₄) <input checked="" type="checkbox"/>	<u>1P</u> <u>—</u>

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type: G = Glass, P = Poly
Preservative Codes: 1 = HCL, 4 = NaOH, 2 = HNO₃, 5 = BAC, 3 = H₂SO₄, 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 20(35)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel L. Hingorani Date 6-7-17 Start Time 10:05 Weather Sunny, 76°F

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 25.27 Depth to Product Product Thickness
 Total Casing Depth 31.53 Borehole Diameter Approx. Pump Depth 33 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1215 Pump Stopped 1335 Total Gallons

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
1200	6.35	1.129	17.62	59.6	200	25.31	0.04	1.13	-83.2
1205	6.37	1.133	17.39	51.1	200	25.31	0.04	1.05	-82.8
1230	6.32	1.135	17.52	45.6	200	25.31	0.04	0.89	-82.3
1235	6.31	1.139	17.41	34.2	200	25.31	0.04	0.73	-81.9
1240	6.29	1.147	17.34	22.1	200	25.31	0.04	0.51	-81.6
1245	6.28	1.151	17.35	7.6	200	25.31	0.04	0.49	-80.7
1250	6.26	1.153	17.36	4.1	200	25.31	0.04	0.47	-79.3
1255	6.25	1.157	17.39	4.1	200	25.31	0.04	0.45	-78.4

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1255 pH 6.25 SC 1.157 Temp 17.39 Turb. 4.1 Flow Rate 200 DTW 25.31 Drawdown 0.04 DO 0.45 ORP -78.4

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW 20(35)-61060717 Time 1300

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3G</u>	<u>1</u>	Dissolved Gases <input checked="" type="checkbox"/>	<u>3G</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u>
			Alkalinity + Anions (Cl-, SO4) <input checked="" type="checkbox"/>	<u>1P</u>
Other: <input type="checkbox"/>			Other: <input type="checkbox"/>	

MS/MSD _____ Replicate: ATR-MW 20(35)-61060717-R Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water [] Groundwater [X] Sample ID ATR-MW 20(51)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel L. Hugganbur Date 6-7-17 Start Time 1045 Weather Sunny, 73°F

MEASUREMENT SUMMARY:
Measuring Point TOC Depth to Water 25.25 Depth to Product Product Thickness
Total Casing Depth 50.39 Borehole Diameter Approx. Pump Depth Feet
Screen Interval top bottom Feet

SAMPLING SUMMARY:
Sampling Method: Grab [] Composite [] Grundfos [] Bladder Pump [X] Peristaltic Pump [] Bailor []
Pump Started 1058 Pump Stopped 1200 Total Gallons
Table with columns: Time (24-hr), pH (S.U.), SC (mS/cm), Temp (°C), Turb. (NTU), Flow Rate (ml/min), DTW (ft), Drawdown (ft), DO (mg/L), ORP (mV)
Rows of data from 1105 to 1130.

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10
Final:
Time pH SC Temp Turb. Flow Rate DTW Drawdown DO ORP
1130 6.17 0.850 15.30 21 200 25.31 0.06 0.62 -70.5

Comments:

Calibration: pH Calibration Buffers: 4 [X] 7 [X] 10 [X] ORP Calibration 240 mV
SC Reference Solution 1.49 mS/cm Turbidity Cal. Solution 0/100 NTUs
Sample Name ATR-MW 20(51)-6060917 Time 1135
Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
VOCs [X] 36 1 Dissolved Gasses [X] 36 6
TOC + NO3 [X] 1P 3 VFA [X] 26 5
Fe/Mn [X] 1P 2 DHC [X] 1P -
Alkalinity + Anions (Cl-, SO4) [X] 1P -
Other: [] Other: []
MS/MSD Blind Dup Blind Dup Name TB



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 82
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SP Date 6-7-17 Start Time 1300 Weather TS Sunny

MEASUREMENT SUMMARY:
 Measuring Point 70C Depth to Water 22.29 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1315 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
1325	7.04	0.695	16.82	0.0	200	22.29	0	3.73	-117.0
1330	6.89	0.690	16.80	0.0	200	22.29	0	3.01	-119.1
1335	6.80	0.685	16.76	0.0	200	22.29	0	2.55	-123.3
1340	6.73	0.674	16.75	0.0	200	22.29	0	1.81	-121.8
1345	6.70	0.676	16.71	0.0	200	22.29	0	1.69	-121.7
1350	6.69	0.674	16.71	0.0	200	22.29	0	1.53	-121.8
1355	6.68	0.672	16.76	0.0	200	22.29	0	1.47	-121.6

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1355 pH 6.68 SC 0.672 Temp 16.76 Turb. 0.0 Flow Rate 200 DTW 22.29 Drawdown 0 DO 1.47 ORP -121.6

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW 82-6060717 Time 1355 Bottle Type: _____

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>361</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>361</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>201</u> <u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>
			Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u> <u>0</u>

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄



GROUNDWATER/SURFACE WATER SAMPLING FORM

Amec Foster Wheeler Environment & Infrastructure, Inc.

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW Equipment Blank
 Project Number 3359-15-1040 (Use Well name)
 Sampling Personnel SP Date 6-7-17 Start Time _____ Weather _____

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water _____ Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started _____ Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)

Stablization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP

Comments: Equipment blank collected after MW-82 using 196
DI

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration _____ mV
 SC Reference Solution _____ mS/cm Turbidity Cal. Solution _____ NTUs

Sample Name ATR-MW E601-6060717 Time 1415

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input type="checkbox"/>	_____	_____	Dissolved Gasses <input type="checkbox"/>	_____
TOC + NO ₃ <input type="checkbox"/>	_____	_____	VFA <input type="checkbox"/>	_____
Fe/Mn <input type="checkbox"/>	_____	_____	DHC <input type="checkbox"/>	_____
			Alkalinity + Anions (Cl-, SO4) <input type="checkbox"/>	_____
Other: <input type="checkbox"/>			Other: <input type="checkbox"/>	

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MWOW1 (28)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SP Date 6-7-17 Start Time 1145 Weather 72°F Sunny

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 20.15 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 25.5 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1155 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1205</u>	<u>6.95</u>	<u>0.860</u>	<u>14.69</u>	<u>11.7</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>2.19</u>	<u>-83.7</u>
<u>1210</u>	<u>6.92</u>	<u>0.851</u>	<u>14.68</u>	<u>8.8</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>1.75</u>	<u>-95.7</u>
<u>1215</u>	<u>6.91</u>	<u>0.838</u>	<u>14.68</u>	<u>4.0</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>1.19</u>	<u>-112.6</u>
<u>1220</u>	<u>6.91</u>	<u>0.837</u>	<u>14.64</u>	<u>3.5</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>1.17</u>	<u>-113.6</u>
<u>1225</u>	<u>6.91</u>	<u>0.834</u>	<u>14.64</u>	<u>4.0</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>0.95</u>	<u>-116.9</u>
<u>1230</u>	<u>6.91</u>	<u>0.833</u>	<u>14.65</u>	<u>0.7</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>0.94</u>	<u>-121.1</u>
<u>1235</u>	<u>6.92</u>	<u>0.834</u>	<u>14.65</u>	<u>0.5</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>0.93</u>	<u>-121.4</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1235</u>	<u>6.92</u>	<u>0.834</u>	<u>14.65</u>	<u>0.5</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>0.93</u>	<u>-121.4</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MWOW1 (28) - G060717 Time 1235

Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative

VOCs 36 1 Dissolved Gasses 36 6

TOC + NO₃ 1P 3 VFA 26 5

Fe/Mn 1P 2 DHC 1P 0

Alkalinity + Anions (Cl-, SO₄) 1P 0

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:

G = Glass
P = Poly

Preservative Codes:

1 = HCL 4 = NaOH
2 = HNO₃ 5 = BAC
3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW OW1 (39)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SP Date 6-7-17 Start Time 1020 Weather 70 Sunny

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 20.15 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 36 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1055 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1105</u>	<u>6.93</u>	<u>0.625</u>	<u>15.08</u>	<u>2.0</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>1.36</u>	<u>-101.5</u>
<u>1110</u>	<u>6.92</u>	<u>0.613</u>	<u>15.17</u>	<u>1.8</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>1.19</u>	<u>-102.8</u>
<u>1115</u>	<u>6.90</u>	<u>0.608</u>	<u>15.13</u>	<u>2.7</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>1.08</u>	<u>-103.6</u>
<u>1120</u>	<u>6.88</u>	<u>0.598</u>	<u>15.10</u>	<u>3.9</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>0.99</u>	<u>-103.8</u>
<u>1125</u>	<u>6.89</u>	<u>0.594</u>	<u>15.09</u>	<u>3.9</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>0.97</u>	<u>-103.7</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1125</u>	<u>6.89</u>	<u>0.594</u>	<u>15.09</u>	<u>3.9</u>	<u>200</u>	<u>20.15</u>	<u>0</u>	<u>0.97</u>	<u>-103.7</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW OW1 (39) - 6060717 Time 1125

Analyses (check) Bottle #/Type Preservative VOCs <input checked="" type="checkbox"/> <u>361</u> <u>1</u> TOC + NO ₃ <input checked="" type="checkbox"/> <u>1P</u> <u>3</u> Fe/Mn <input checked="" type="checkbox"/> <u>1P</u> <u>2</u>	Bottle #/Type Preservative Dissolved Gasses <input checked="" type="checkbox"/> <u>361</u> <u>6</u> VFA <input checked="" type="checkbox"/> <u>261</u> <u>5</u> DHC <input checked="" type="checkbox"/> <u>1P</u> <u>0</u> Alkalinity + Anions (Cl ⁻ , SO ₄) <input checked="" type="checkbox"/> <u>1P</u> <u>0</u>
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Other: Other:
 MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW-14
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel LH Date 6-7-17 Start Time 0915 Weather Sunny 67°F

MEASUREMENT SUMMARY:
 Measuring Point 700 Depth to Water 17.81 Depth to Product _____ Product Thickness _____
 Total Casing Depth 45.77 Borehole Diameter _____ Approx. Pump Depth 43 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 0925 Pump Stopped 1020 Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>0930</u>	<u>6.93</u>	<u>0.960</u>	<u>13.53</u>	<u><1</u>	<u>250</u>	<u>17.85</u>	<u>0.04</u>	<u>1.10</u>	<u>-142.2</u>
<u>0935</u>	<u>6.90</u>	<u>0.914</u>	<u>13.50</u>	<u><1</u>	<u>250</u>	<u>17.85</u>	<u>0.04</u>	<u>0.79</u>	<u>-149.6</u>
<u>0940</u>	<u>6.87</u>	<u>0.927</u>	<u>13.46</u>	<u><1</u>	<u>250</u>	<u>17.85</u>	<u>0.04</u>	<u>0.63</u>	<u>-157.1</u>
<u>0945</u>	<u>6.82</u>	<u>0.948</u>	<u>13.41</u>	<u><1</u>	<u>250</u>	<u>17.85</u>	<u>0.04</u>	<u>0.56</u>	<u>-162.5</u>
<u>0950</u>	<u>6.77</u>	<u>0.953</u>	<u>13.36</u>	<u><1</u>	<u>250</u>	<u>17.85</u>	<u>0.04</u>	<u>0.55</u>	<u>-163.9</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 0950 pH 6.77 SC 0.953 Temp 13.36 Turb. <1 Flow Rate 250 DTW 17.85 Drawdown 0.04 DO 0.55 ORP -163.9

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 9.49 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW 14-6060717 Time 0955

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>30</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>8</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>5</u>
Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u>	<u>-</u>		

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW24(24.9)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel LH Date 6-6-17 Start Time 1550 Weather Sunny, 78°F

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 20.08 Depth to Product _____ Product Thickness _____
 Total Casing Depth 24.10 Borehole Diameter _____ Approx. Pump Depth 24.0 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1605 Pump Stopped 1655 Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
1610	6.90	0.1624	14.95	<1	250	20.13	0.05	1.11	-83.9
1615	6.57	0.1627	14.83	<1	250	20.13	0.05	0.86	-79.2
1620	6.35	0.1619	14.87	<1	250	20.13	0.05	0.64	-75.7
1625	6.33	0.1620	14.86	<1	250	20.13	0.05	0.59	-76.3
1630	6.29	0.1621	14.24	<1	250	20.13	0.05	0.56	-77.7

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1630 pH 6.29 SC 0.1621 Temp 14.24 Turb. <1 Flow Rate 250 DTW 20.13 Drawdown 0.05 DO 0.56 ORP -77.7

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW24(24.9)-01060017-1635 Time 1635

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3G</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>3G</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>2G</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u>
			Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u>

Other: Other:
 MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly

Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW EBooz
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel LTF Date 6-7-17 Start Time 0905 Weather Sunny 64°F

MEASUREMENT SUMMARY:
Measuring Point _____ Depth to Water _____ Depth to Product _____ Product Thickness _____
Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
Sampling Method: Grab [] Composite [] Grundfos [] Bladder Pump [] Peristaltic Pump [] Bailer []
Pump Started _____ Pump Stopped _____ Total Gallons _____
Table with columns: Time (24-hr), pH (S.U.), SC (mS/cm), Temp (°C), Turb. (NTU), Flow Rate (ml/min), DTW (ft), Drawdown (ft), DO (mg/L), ORP (mV)

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
Table with columns: Time, pH, SC, Temp, Turb., Flow Rate, DTW, Drawdown, DO, ORP

Comments: * collected after mw 24(95.4) + before

Calibration: pH Calibration Buffers: 4 [X] 7 [X] 10 [X] ORP Calibration 240 mV
SC Reference Solution 16.49 mS/cm Turbidity Cal. Solution 9100 NTUs
Sample Name ATR-MW EBooz-1060717 Time 0910
Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
VOCs [X] 3G 1 Dissolved Gases []
TOC + NO3 [] VFA []
Fe/Mn [] DHC []
Alkalinity + Anions (Cl-, SO4) []
Other: [] Other: []
MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
G = Glass
P = Poly
Preservative Codes:
1 = HCL 4 = NaOH
2 = HNO3 5 = BAC
3 = H2SO4 6 = Na3PO4

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 24155.4
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel L.H. Date 6-7-17 Start Time 0755 Weather Sunny, 62°F

MEASUREMENT SUMMARY:

Measuring Point TTC Depth to Water 20.15 Depth to Product _____ Product Thickness _____
Total Casing Depth 55.37 Borehole Diameter _____ Approx. Pump Depth 52 Feet
Screen Interval top bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 0810 Pump Stopped 0900 Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
0815	6.59	1.185	12.88	10.8	250	20.23	0.08	4.05	-160.7
0820	6.63	1.171	12.86	6.3	250	20.23	0.08	0.43	-162.5
0825	6.67	1.163	12.86	3.2	250	20.23	0.08	0.71	-163.3
0830	6.71	1.147	12.85	4.1	250	20.23	0.08	0.64	-165.1
0835	6.72	1.143	12.89	4.1	250	20.23	0.08	0.61	-167.3

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
Time 0835 pH 6.72 SC 1.143 Temp 12.89 Turb. 4.1 Flow Rate 250 DTW 20.23 Drawdown 0.08 DO 0.61 ORP -167.3

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 1.149 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW 24155.4 - G1610717 Time 0840 Bottle Type: _____
Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative G = Glass P = Poly
VOCs 3G 1 Dissolved Gasses 36 6
TOC + NO₃ 1P 3 VFA 26 5
Fe/Mn 1P 2 DHC 1P 2
 Alkalinity + Anions (Cl-, SO₄) 1P -
Other: _____ Other: _____ 1 = HCL 4 = NaOH
MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MWOW2 (33)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel S. Parady Date 6-6-17 Start Time 1535 Weather _____

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 20.61 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 30 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1540 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1550</u>	<u>6.79</u>	<u>0.799</u>	<u>14.95</u>	<u>49.5</u>	<u>200</u>	<u>20.61</u>	<u>0</u>	<u>2.01</u>	<u>-120.0</u>
<u>1555</u>	<u>6.81</u>	<u>0.800</u>	<u>15.23</u>	<u>42.6</u>	<u>200</u>	<u>20.61</u>	<u>0</u>	<u>1.63</u>	<u>-121.9</u>
<u>1600</u>	<u>6.82</u>	<u>0.803</u>	<u>15.29</u>	<u>28.5</u>	<u>200</u>	<u>20.61</u>	<u>0</u>	<u>1.27</u>	<u>-128.4</u>
<u>1605</u>	<u>6.87</u>	<u>0.804</u>	<u>15.30</u>	<u>19.0</u>	<u>200</u>	<u>20.61</u>	<u>0</u>	<u>1.04</u>	<u>-131.6</u>
<u>1610</u>	<u>6.88</u>	<u>0.805</u>	<u>15.32</u>	<u>21.1</u>	<u>200</u>	<u>20.61</u>	<u>0</u>	<u>0.97</u>	<u>-132.6</u>
<u>1615</u>	<u>6.89</u>	<u>0.806</u>	<u>15.32</u>	<u>21.7</u>	<u>200</u>	<u>20.61</u>	<u>0</u>	<u>0.91</u>	<u>-133.2</u>
<u>1620</u>	<u>6.89</u>	<u>0.806</u>	<u>15.32</u>	<u>21.0</u>	<u>200</u>	<u>20.61</u>	<u>0</u>	<u>0.90</u>	<u>-133.0</u>

Stabilization Criteria: ±3% ±3% ±10 ±10%

Final:
 Time 1620 pH 6.89 SC 0.806 Temp 15.32 Turb. 21.0 Flow Rate 200 DTW 20.61 Drawdown 0 DO 0.90 ORP -133.0

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MWOW2(33)-6080617 Time 1620

Analyses (check) Bottle #/Type Preservative VOCs <input checked="" type="checkbox"/> <u>36</u> <u>1</u> Dissolved Gasses <input checked="" type="checkbox"/> <u>36</u> <u>6</u> TOC + NO ₃ <input checked="" type="checkbox"/> <u>1P</u> <u>3</u> VFA <input checked="" type="checkbox"/> <u>26</u> <u>5</u> Fe/Mn <input checked="" type="checkbox"/> <u>1P</u> <u>2</u> DHC <input checked="" type="checkbox"/> <u>1P</u> <u>0</u> Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/> <u>1A</u> <u>0</u>	Bottle Type: G = Glass P = Poly Preservative Codes: 1 = HCL 4 = NaOH 2 = HNO ₃ 5 = BAC 3 = H ₂ SO ₄ 6 = Na ₃ PO ₄
Other: <input type="checkbox"/> _____	Other: <input type="checkbox"/> _____
MS/MSD _____ Blind Dup _____	Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water [] Groundwater [x] Sample ID ATR-MW 0wa (53)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel _____ Date 6-6-17 Start Time 1435 Weather 75 Sunny

MEASUREMENT SUMMARY:
Measuring Point TOC Depth to Water 19.55 Depth to Product _____ Product Thickness _____
Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 50 Feet
Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
Sampling Method: Grab [] Composite [] Grundfos [] Bladder Pump [x] Peristaltic Pump [] Bailor []
Pump Started 1445 Pump Stopped _____ Total Gallons _____
Table with columns: Time (24-hr), pH (S.U.), SC (mS/cm), Temp (°C), Turb. (NTU), Flow Rate (ml/min), DTW (ft), Drawdown (ft), DO (mg/L), ORP (mV). Rows include data for 1450, 1500, 1505, 1510, 1515.

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10
Final:
Time 1515 pH 6.58 SC 0.960 Temp 15.40 Turb. 6.1 Flow Rate 200 DTW 19.55 Drawdown 0 DO 1.26 ORP -121.0

Comments: _____

Calibration: pH Calibration Buffers: 4 [x] 7 [x] 10 [x] ORP Calibration 240 mV
SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs
Sample Name ATR-MW 0wa (53)-6080017 Time 1515
Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
VOCs [x] 36 1 Dissolved Gasses [x] 36 6
TOC + NO3 [x] 1P 3 VFA [x] 26 5
Fe/Mn [x] 1P 2 DHC [x] 1P 0
Alkalinity + Anions (Cl-, SO4) [] 1P 0
Other: [] Other: []
MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW003(35)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SP Date 6-7-17 Start Time 0920 Weather 82°F Sunny

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 17.10 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 33 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 0930 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>0940</u>	<u>7.11</u>	<u>0.673</u>	<u>13.26</u>	<u>1.9</u>	<u>200</u>	<u>17.10</u>	<u>0</u>	<u>1.41</u>	<u>-142.6</u>
<u>0945</u>	<u>7.11</u>	<u>0.674</u>	<u>13.25</u>	<u>0.0</u>	<u>200</u>	<u>17.10</u>	<u>0</u>	<u>1.37</u>	<u>-143.0</u>
<u>0950</u>	<u>7.11</u>	<u>0.685</u>	<u>13.25</u>	<u>0.0</u>	<u>200</u>	<u>17.10</u>	<u>0</u>	<u>1.32</u>	<u>-143.5</u>
<u>0955</u>	<u>7.13</u>	<u>0.676</u>	<u>13.25</u>	<u>0.0</u>	<u>200</u>	<u>17.10</u>	<u>0</u>	<u>1.14</u>	<u>-147.0</u>
<u>1000</u>	<u>7.15</u>	<u>0.674</u>	<u>13.24</u>	<u>0.0</u>	<u>200</u>	<u>17.10</u>	<u>0</u>	<u>1.06</u>	<u>-146.0</u>
<u>1005</u>	<u>7.16</u>	<u>0.672</u>	<u>13.24</u>	<u>0.0</u>	<u>200</u>	<u>17.10</u>	<u>0</u>	<u>0.98</u>	<u>-147.1</u>
<u>1010</u>	<u>7.16</u>	<u>0.671</u>	<u>13.24</u>	<u>0.0</u>	<u>200</u>	<u>17.10</u>	<u>0</u>	<u>0.95</u>	<u>-150.0</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1010 pH 7.16 SC 0.671 Temp 13.24 Turb. 0.0 Flow Rate 200 DTW 17.10 Drawdown 0 DO 0.95 ORP -150.0

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.126 NTUs

Sample Name ATR-MW003(35)-6060717 Time 1010

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3G</u>	<u>1</u>	<u>3G</u>	<u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	<u>2G</u>	<u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	<u>1P</u>	<u>0</u>
		Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u>	<u>0</u>

Other: Other:

MS/MSD ATR-003(35)-6060717 MS Blind Dup _____ Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW-OW3(55)
 Project Number 3359-15-1040 Date 6-7-17 Start Time 0800 Weather 64°F Sunny
 Sampling Personnel SP (Use: Well name)

MEASUREMENT SUMMARY:
 Measuring Point POC Depth to Water 17.00 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 53 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 0820 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>0830</u>	<u>6.44</u>	<u>1.959</u>	<u>13.47</u>	<u>58.3</u>	<u>200</u>	<u>17.08</u>	<u>.08</u>	<u>3.70</u>	<u>-130.8</u>
<u>0835</u>	<u>6.61</u>	<u>1.728</u>	<u>13.62</u>	<u>37.4</u>	<u>200</u>	<u>17.04</u>	<u>.04</u>	<u>2.72</u>	<u>-134.4</u>
<u>0840</u>	<u>6.61</u>	<u>1.727</u>	<u>13.62</u>	<u>34.4</u>	<u>200</u>	<u>17.04</u>	<u>.04</u>	<u>2.18</u>	<u>-134.5</u>
<u>0845</u>	<u>6.64</u>	<u>1.686</u>	<u>13.66</u>	<u>35.9</u>	<u>200</u>	<u>17.04</u>	<u>.04</u>	<u>1.95</u>	<u>-136.5</u>
<u>0850</u>	<u>6.65</u>	<u>1.677</u>	<u>13.68</u>	<u>35.2</u>	<u>200</u>	<u>17.04</u>	<u>.04</u>	<u>1.86</u>	<u>-136.7</u>
<u>0855</u>	<u>6.68</u>	<u>1.641</u>	<u>13.68</u>	<u>29.3</u>	<u>200</u>	<u>17.04</u>	<u>.04</u>	<u>1.54</u>	<u>-138.4</u>
<u>0900</u>	<u>6.69</u>	<u>1.634</u>	<u>13.67</u>	<u>28.2</u>	<u>200</u>	<u>17.04</u>	<u>.04</u>	<u>1.44</u>	<u>-138.7</u>
<u>0905</u>	<u>6.69</u>	<u>1.632</u>	<u>13.70</u>	<u>28.9</u>	<u>200</u>	<u>17.04</u>	<u>.04</u>	<u>1.41</u>	<u>-138.7</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 0905 pH 6.69 SC 1.632 Temp 13.70 Turb. 28.9 Flow Rate 200 DTW 17.04 Drawdown .04 DO 1.41 ORP -138.7

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 228 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW-OW3(55)-6060717 Time 0905

Analyses (check)	Bottle #/Type	Preservative	Dissolved Gasses	Bottle #/Type	Preservative	VFA	DHC	Alkalinity + Anions (Cl-, SO4)	Other: <input type="checkbox"/>	Other: <input type="checkbox"/>	Bottle Type:
											G = Glass P = Poly
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	<input checked="" type="checkbox"/>	<u>36</u>	<u>6</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Preservative Codes:
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>26</u>	<u>5</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1 = HCL 4 = NaOH
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	<input checked="" type="checkbox"/>	<u>1P</u>	<u>0</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2 = HNO ₃ 5 = BAC
											3 = H ₂ SO ₄ 6 = Na ₃ PO ₄

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 15
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAM Date 6-6-2017 Start Time _____ Weather clear, 73°

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 8.83 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 50. Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 0941 Pump Stopped 1055 Total Gallons ~2

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>0949</u>	<u>6.48</u>	<u>1.362</u>	<u>15.15</u>	<u>78.4</u>	<u>200</u>	<u>8.84</u>	<u>0.01</u>	<u>1.08</u>	<u>-100.6</u>
<u>0954</u>	<u>6.54</u>	<u>1.783</u>	<u>14.94</u>	<u>76.8</u>	<u>160</u>	<u>8.84</u>	<u>0.01</u>	<u>0.74</u>	<u>-105.2</u>
<u>0959</u>	<u>6.57</u>	<u>1.859</u>	<u>14.82</u>	<u>78.1</u>	<u>160</u>	<u>8.83</u>	<u>0.00</u>	<u>0.68</u>	<u>-100.8</u>
<u>1004</u>	<u>6.66</u>	<u>1.799</u>	<u>14.83</u>	<u>76.9</u>	<u>160</u>	<u>8.83</u>	<u>0.00</u>	<u>0.51</u>	<u>-105.5</u>
<u>1009</u>	<u>6.73</u>	<u>1.845</u>	<u>14.79</u>	<u>42.6</u>	<u>160</u>	<u>8.83</u>	<u>0.00</u>	<u>0.48</u>	<u>-107.9</u>
<u>1014</u>	<u>6.70</u>	<u>1.797</u>	<u>14.81</u>	<u>30.1</u>	<u>160</u>	<u>8.83</u>	<u>0.00</u>	<u>0.45</u>	<u>-107.4</u>
<u>1019</u>	<u>6.70</u>	<u>1.845</u>	<u>14.82</u>	<u>26.7</u>	<u>160</u>	<u>8.83</u>	<u>0.00</u>	<u>0.44</u>	<u>-108.0</u>
<u>1024</u>	<u>6.70</u>	<u>1.867</u>	<u>14.80</u>	<u>23.6</u>	<u>160</u>	<u>8.83</u>	<u>0.00</u>	<u>0.46</u>	<u>-106.8</u>
<u>1029</u>	<u>6.68</u>	<u>1.840</u>	<u>14.80</u>	<u>26.2</u>	<u>160</u>	<u>8.83</u>	<u>0.00</u>	<u>0.44</u>	<u>-104.4</u>

Stabilization Criteria: $\pm 3\%$ $\pm 3\%$ ± 10 $\pm 10\%$ ± 10

Final:
 Time 1029 pH 6.68 SC 1.840 Temp 14.80 Turb. 26.2 Flow Rate 160 DTW 8.83 Drawdown 0.00 DO 0.44 ORP -104.4

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.0 & 126.0 NTUs

Sample Name ATR-MW 15-G060617 Time 1035 Bottle Type:
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs 6 _____ _____ _____ _____
 TOC + NO₃ _____ _____ _____ _____
 Fe/Mn _____ _____ _____ _____
 Alkalinity + Anions (Cl⁻, SO₄) _____ _____ _____ _____
 Other: _____ Other: _____
 MS/MSD Blind Dup Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW25(16.4)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAM Date 6-6-2017 Start Time _____ Weather clear, 76°F

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 7.57 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1350 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
1355	7.06	0.877	14.51	1.5	260	7.60	0.03	1.34	-110.9
1400	7.01	0.876	14.46	0.1	240	7.62	0.05	0.84	-113.4
1405	7.02	0.881	14.38	-0.2	240	7.59	0.02	0.59	-120.3
1410	7.01	0.884	14.35	-0.3	240	7.59	0.02	0.45	-122.4
1415	7.00	0.885	14.44	-0.2	240	7.60	0.03	0.45	-120.2
1420	7.01	0.891	14.44	-0.2	240	7.60	0.03	0.40	-119.9

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.1260 NTUs

Sample Name ATR-MW25(16.4)-6060617 Time 1425 Bottle Type: _____

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input type="checkbox"/>	_____	_____	Dissolved Gasses <input type="checkbox"/>	_____
TOC + NO ₃ <input type="checkbox"/>	_____	_____	VFA <input type="checkbox"/>	_____
Fe/Mn <input type="checkbox"/>	_____	_____	DHC <input type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____	_____	Alkalinity + Anions (Cl-, SO4) <input type="checkbox"/>	_____
MS/MSD _____	Blind Dup _____	Blind Dup Name <u>ATR-MW25(16.4)-6060617</u>	TB _____	_____

Bottle Type:
 G = Glass
 P = Poly

Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW/25(32.6)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel Am Date 6.6.2017 Start Time 1235 Weather clear, 78°F

MEASUREMENT SUMMARY:
Measuring Point TOC Depth to Water 7.51 Depth to Product Product Thickness
Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 26 Feet
Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
Pump Started 1240 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
1245	6.82	1.185	14.92	1.8	260	7.58	0.01	2.21	-42.4
1250	6.72	1.200	14.46	1.1	260	7.59	0.02	0.82	-79.5
1255	6.77	1.240	14.36	1.1	260	7.59	0.02	0.56	-90.3
1300	6.77	1.249	14.38	1.8	260	7.59	0.02	0.52	-92.0
1305	6.75	1.245	14.36	2.0	260	7.59	0.02	0.45	-92.8
1310	6.75	1.251	14.32	1.7	260	7.59	0.02	0.42	-90.0
1315	6.72	1.254	14.45	2.4	260	7.59	0.02	0.38	-90.0

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
Time 1315 pH 6.72 SC 1.254 Temp 14.45 Turb. 2.4 Flow Rate 260 DTW 7.59 Drawdown 0.02 DO 0.38 ORP -90.0

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 09/126.0 NTUs

Sample Name ATR-MW/25(32.6)-G060617 Time 1320

Analyses (check)	Bottle #/Type	Preservative	Analyses (check)	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>			Dissolved Gasses <input checked="" type="checkbox"/>		
TOC + NO ₃ <input checked="" type="checkbox"/>			VFA <input checked="" type="checkbox"/>		
Fe/Mn <input checked="" type="checkbox"/>			DHC <input checked="" type="checkbox"/>		
			Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>		
Other: <input type="checkbox"/>			Other: <input type="checkbox"/>		

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
G = Glass
P = Poly

Preservative Codes:
1 = HCL 4 = NaOH
2 = HNO₃ 5 = BAC
3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW25 (45.2)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel Jam Date 6-6-2017 Start Time 1120 Weather clear, 78°F

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 7.86 Depth to Product _____ Product Thickness _____
 Total Casing Depth 44.81 Borehole Diameter _____ Approx. Pump Depth 38 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1128 Pump Stopped 1219 Total Gallons 2.5

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1133</u>	<u>6.67</u>	<u>1.445</u>	<u>15.01</u>	<u>0.1</u>	<u>150</u>	<u>7.89</u>	<u>0.03</u>	<u>1.56</u>	<u>-87.6</u>
<u>1138</u>	<u>6.66</u>	<u>1.543</u>	<u>15.08</u>	<u>0.0</u>	<u>150</u>	<u>7.89</u>	<u>0.03</u>	<u>0.94</u>	<u>-97.8</u>
<u>1143</u>	<u>6.74</u>	<u>1.608</u>	<u>15.30</u>	<u>0.1</u>	<u>150</u>	<u>7.88</u>	<u>0.02</u>	<u>0.67</u>	<u>-103.2</u>
<u>1148</u>	<u>6.72</u>	<u>1.582</u>	<u>15.28</u>	<u>0.0</u>	<u>150</u>	<u>7.88</u>	<u>0.02</u>	<u>0.61</u>	<u>-104.6</u>
<u>1153</u>	<u>6.71</u>	<u>1.600</u>	<u>15.27</u>	<u>0.0</u>	<u>150</u>	<u>7.88</u>	<u>0.02</u>	<u>0.52</u>	<u>-104.4</u>
<u>1158</u>	<u>6.72</u>	<u>1.642</u>	<u>15.16</u>	<u>0.1</u>	<u>150</u>	<u>7.88</u>	<u>0.02</u>	<u>0.49</u>	<u>-103.4</u>
<u>1203</u>	<u>6.71</u>	<u>1.605</u>	<u>15.18</u>	<u>0.0</u>	<u>150</u>	<u>7.88</u>	<u>0.02</u>	<u>0.47</u>	<u>-103.2</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1203 pH 6.71 SC 1.605 Temp 15.18 Turb. 0.0 Flow Rate 150 DTW 7.88 Drawdown 0.02 DO 0.47 ORP -103.2

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.126 NTUs

Sample Name ATR-MW25(45.2)-6060617 Time 1205

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative	Bottle Type: G = Glass P = Poly Preservative Codes: 1 = HCL 4 = NaOH 2 = HNO ₃ 5 = BAC 3 = H ₂ SO ₄ 6 = Na ₃ PO ₄
VOCs <input type="checkbox"/>	_____	_____	Dissolved Gasses <input type="checkbox"/>	_____	
TOC + NO ₃ <input type="checkbox"/>	_____	_____	VFA <input type="checkbox"/>	_____	
Fe/Mn <input type="checkbox"/>	_____	_____	DHC <input type="checkbox"/>	_____	
Alkalinity + Anions (Cl-, SO4) <input type="checkbox"/>	_____	_____	Other: <input type="checkbox"/>	_____	

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-~~OW~~4(35)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel Jam Date 6-7-2017 Start Time 0800 Weather _____

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 7.07 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 29 Feet
 Screen Interval top bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailer
 Pump Started 0803 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>0808</u>	<u>6.54</u>	<u>2327</u>	<u>13.93</u>	<u>6.3</u>	<u>300</u>	<u>7.44</u>	<u>0.37</u>	<u>4.16</u>	<u>-119.7</u>
<u>0813</u>	<u>6.64</u>	<u>2391</u>	<u>13.96</u>	<u>5.3</u>	<u>240</u>	<u>7.36</u>	<u>0.29</u>	<u>0.64</u>	<u>-142.1</u>
<u>0818</u>	<u>6.70</u>	<u>2388</u>	<u>13.95</u>	<u>5.5</u>	<u>240</u>	<u>7.35</u>	<u>0.28</u>	<u>0.52</u>	<u>-146.7</u>
<u>0823</u>	<u>6.73</u>	<u>2448</u>	<u>13.96</u>	<u>4.8</u>	<u>240</u>	<u>7.35</u>	<u>0.28</u>	<u>0.45</u>	<u>-147.5</u>
<u>0828</u>	<u>6.72</u>	<u>2477</u>	<u>13.92</u>	<u>4.8</u>	<u>240</u>	<u>7.35</u>	<u>0.28</u>	<u>0.42</u>	<u>-146.9</u>
<u>0833</u>	<u>6.70</u>	<u>2438</u>	<u>13.93</u>	<u>4.1</u>	<u>240</u>	<u>7.35</u>	<u>0.28</u>	<u>0.38</u>	<u>-144.0</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 0833 pH 6.70 SC 2438 Temp 13.93 Turb. 4.1 Flow Rate 240 DTW 7.35 Drawdown 0.28 DO 0.38 ORP -144.0

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 03126.0 NTUs
 ORP Calibration 240.0 mV
 Sample Name ATR-OW4(35)-G060717 Time 0835
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs _____ _____ Dissolved Gasses _____ _____
 TOC + NO₃ _____ _____ VFA _____ _____
 Fe/Mn _____ _____ DHC _____ _____
 Alkalinity + Anions (Cl-, SO₄) _____ _____
 Other: _____ _____ Other: _____ _____
 MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

Equipment Blank

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW *Equipment Blank*
 Project Number 3359-15-1040 (Use Well name)
 Sampling Personnel JAN Date 6-6-2017 Start Time _____ Weather _____

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water _____ Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Baller

Pump Started _____ Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration _____ mV
 SC Reference Solution _____ mS/cm Turbidity Cal. Solution _____ NTUs

Sample Name ATR-MW ATR-EB003-G060617 Time 1640

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input type="checkbox"/>	_____	_____	Dissolved Gasses <input type="checkbox"/>	_____
TOC + NO ₃ <input type="checkbox"/>	_____	_____	VFA <input type="checkbox"/>	_____
Fe/Mn <input type="checkbox"/>	_____	_____	DHC <input type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____	_____	Alkalinity + Anions (Cl ⁻ , SO ₄) <input type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____	_____	Other: <input type="checkbox"/>	_____

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly

Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-OW 4(54)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAM Date 6-6-2017 Start Time _____ Weather clear, 78°F

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 16.97 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1528 Pump Stopped 1623 Total Gallons 2.5

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1535</u>	<u>7.01</u>	<u>1.147</u>	<u>14.91</u>	<u>5.1</u>	<u>220</u>	<u>17.00</u>	<u>0.03</u>	<u>1.09</u>	<u>-85.3</u>
<u>1540</u>	<u>6.95</u>	<u>1.156</u>	<u>14.85</u>	<u>5.1</u>	<u>220</u>	<u>17.00</u>	<u>0.03</u>	<u>0.70</u>	<u>-109.5</u>
<u>1545</u>	<u>6.96</u>	<u>1.186</u>	<u>14.85</u>	<u>5.2</u>	<u>220</u>	<u>17.02</u>	<u>0.05</u>	<u>0.53</u>	<u>-122.9</u>
<u>1550</u>	<u>6.95</u>	<u>1.219</u>	<u>15.01</u>	<u>5.0</u>	<u>220</u>	<u>17.01</u>	<u>0.04</u>	<u>0.46</u>	<u>-127.0</u>
<u>1555</u>	<u>6.95</u>	<u>1.256</u>	<u>14.82</u>	<u>3.6</u>	<u>220</u>	<u>17.00</u>	<u>0.03</u>	<u>0.46</u>	<u>-128.4</u>
<u>1600</u>	<u>6.95</u>	<u>1.322</u>	<u>14.79</u>	<u>4.6</u>	<u>220</u>	<u>17.00</u>	<u>0.03</u>	<u>0.42</u>	<u>-129.1</u>
<u>1605</u>	<u>6.93</u>	<u>1.323</u>	<u>14.79</u>	<u>4.2</u>	<u>220</u>	<u>17.00</u>	<u>0.03</u>	<u>0.39</u>	<u>-130.5</u>
<u>1610</u>	<u>6.90</u>	<u>1.378</u>	<u>14.46</u>	<u>3.6</u>	<u>220</u>	<u>17.01</u>	<u>0.04</u>	<u>0.37</u>	<u>-130.1</u>

Stabilization Criteria: ±3% ±3% ±10 ±10%

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1610</u>	<u>6.90</u>	<u>1.378</u>	<u>14.46</u>	<u>3.6</u>	<u>220</u>	<u>17.01</u>	<u>0.04</u>	<u>0.37</u>	<u>-130.1</u>

Comments: Obtained Equip Blank (ATR-ER003-G060617) after this sample.

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution _____ mS/cm Turbidity Cal. Solution _____ NTUs

Sample Name ATR-OW 4(54)-G060617 Time 1615

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input type="checkbox"/>				
TOC + NO ₃ <input type="checkbox"/>				
Fe/Mn <input type="checkbox"/>				
Other: <input type="checkbox"/>				
MS/MSD _____	Blind Dup _____	Blind Dup Name _____	TB _____	

Dissolved Gasses VFA DHC Alkalinity + Anions (Cl-, SO₄)
 Bottle Type: G = Glass, P = Poly
 Preservative Codes: 1 = HCL, 4 = NaOH, 2 = HNO₃, 5 = BAC, 3 = H₂SO₄, 6 = Na₃PO₄



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW -16
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel LH Date 6-6-17 Start Time 1035 Weather Sunny 73°F

MEASUREMENT SUMMARY:

Measuring Point 106 Depth to Water 9.02 Depth to Product - Product Thickness -
Total Casing Depth 22.73 Borehole Diameter - Approx. Pump Depth 29 Feet
Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1045 Pump Stopped 1145 Total Gallons -

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1050</u>	<u>6.64</u>	<u>1.564</u>	<u>14.76</u>	<u>26</u>	<u>250</u>	<u>9.02</u>	<u>0</u>	<u>1.78</u>	<u>-113.3</u>
<u>1100</u>	<u>6.62</u>	<u>1.508</u>	<u>14.41</u>	<u>21</u>	<u>250</u>	<u>9.02</u>	<u>0</u>	<u>1.52</u>	<u>-110.52</u>
<u>1105</u>	<u>6.59</u>	<u>1.563</u>	<u>14.38</u>	<u>21</u>	<u>250</u>	<u>9.02</u>	<u>0</u>	<u>0.64</u>	<u>-106.3</u>
<u>1110</u>	<u>6.56</u>	<u>1.565</u>	<u>14.34</u>	<u>21</u>	<u>250</u>	<u>9.02</u>	<u>0</u>	<u>0.64</u>	<u>-108.08</u>
<u>1115</u>	<u>6.51</u>	<u>1.566</u>	<u>14.31</u>	<u>21</u>	<u>250</u>	<u>9.02</u>	<u>0</u>	<u>0.59</u>	<u>-106.8</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
Time 1115 pH 6.51 SC 1.568 Temp 14.31 Turb. 21 Flow Rate 250 DTW 9.02 Drawdown 0 DO 0.59 ORP -106.8

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4749 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW No 6060617-1126 Time _____

Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative

VOCs	<input checked="" type="checkbox"/>	<u>36a</u>	<u>1</u>	Dissolved Gasses	<input checked="" type="checkbox"/>	<u>36a</u>	<u>6</u>
TOC + NO ₃	<input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA	<input checked="" type="checkbox"/>	<u>26a</u>	<u>5</u>
Fe/Mn	<input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC	<input checked="" type="checkbox"/>	<u>1P</u>	
Alkalinity + Anions (Cl-, SO ₄)	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<u>1P</u>	

Bottle Type:
G = Glass
P = Poly
Preservative Codes:
1 = HCL 4 = NaOH
2 = HNO₃ 5 = BAC
3 = H₂SO₄ 6 = Na₃PO₄

Other: _____ Other: _____
MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW -17
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel LH Date 6-6-17 Start Time 0910 Weather Sunny 70°F

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 2.90 Depth to Product — Product Thickness —
 Total Casing Depth 40.37 Borehole Diameter 2 Approx. Pump Depth 39 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 0930 Pump Stopped 1025 Total Gallons

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>0935</u>	<u>6.58</u>	<u>0.722</u>	<u>13.92</u>	<u><1</u>	<u>200</u>	<u>2.90</u>	<u>0</u>	<u>1.23</u>	<u>-10.6</u>
<u>0940</u>	<u>6.74</u>	<u>0.727</u>	<u>13.86</u>	<u>1</u>	<u>200</u>	<u>2.90</u>	<u>0</u>	<u>0.96</u>	<u>11.8</u>
<u>0945</u>	<u>6.69</u>	<u>0.732</u>	<u>13.71</u>	<u>1</u>	<u>200</u>	<u>2.90</u>	<u>0</u>	<u>0.82</u>	<u>28.3</u>
<u>0950</u>	<u>6.61</u>	<u>0.732</u>	<u>13.68</u>	<u>1</u>	<u>200</u>	<u>2.90</u>	<u>0</u>	<u>0.73</u>	<u>36.5</u>
<u>0955</u>	<u>5.59</u>	<u>0.733</u>	<u>13.65</u>	<u>1</u>	<u>200</u>	<u>2.90</u>	<u>0</u>	<u>0.64</u>	<u>38.7</u>
<u>1000</u>	<u>5.56</u>	<u>0.734</u>	<u>13.63</u>	<u>1</u>	<u>200</u>	<u>2.90</u>	<u>0</u>	<u>0.66</u>	<u>39.0</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1000 pH 5.56 SC 0.734 Temp 13.63 Turb. 1 Flow Rate 200 DTW 2.90 Drawdown 0 DO 0.66 ORP 39.0

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW 17-6060617-1005 Time 1005

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative	Bottle Type: G = Glass P = Poly Preservative Codes: 1 = HCL 4 = NaOH 2 = HNO ₃ 5 = BAC 3 = H ₂ SO ₄ 6 = Na ₃ PO ₄
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>36</u>	
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u>	
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u>	
			Alkalinity + Anions (Cl-, SO4) <input checked="" type="checkbox"/>	<u>1P</u>	

Other: MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____



GROUNDWATER/SURFACE WATER SAMPLING FORM

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 26(17.5)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel LH Date 6-6-17 Start Time 1425 Weather Sunny, TPF

MEASUREMENT SUMMARY:

Measuring Point JOL Depth to Water 10.08 Depth to Product — Product Thickness —
 Total Casing Depth 171.48 Borehole Diameter — Approx. Pump Depth 15 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1430 Pump Stopped 1535 Total Gallons —

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1435</u>	<u>6.97</u>	<u>0.836</u>	<u>15.26</u>	<u><1</u>	<u>200</u>	<u>10.08</u>	<u>0</u>	<u>1.43</u>	<u>-161.2</u>
<u>1440</u>	<u>6.93</u>	<u>0.842</u>	<u>15.13</u>	<u><1</u>	<u>200</u>	<u>10.08</u>	<u>0</u>	<u>1.06</u>	<u>-158.6</u>
<u>1445</u>	<u>6.71</u>	<u>0.848</u>	<u>15.08</u>	<u><1</u>	<u>200</u>	<u>10.08</u>	<u>0</u>	<u>0.73</u>	<u>-157.1</u>
<u>1450</u>	<u>6.58</u>	<u>0.853</u>	<u>14.97</u>	<u><1</u>	<u>200</u>	<u>10.08</u>	<u>0</u>	<u>0.54</u>	<u>-152.2</u>
<u>1455</u>	<u>6.37</u>	<u>0.862</u>	<u>14.87</u>	<u><1</u>	<u>200</u>	<u>10.08</u>	<u>0</u>	<u>0.46</u>	<u>-143.3</u>
<u>1500</u>	<u>6.31</u>	<u>0.867</u>	<u>14.73</u>	<u><1</u>	<u>200</u>	<u>10.08</u>	<u>0</u>	<u>0.45</u>	<u>-140.2</u>
<u>1505</u>	<u>6.24</u>	<u>0.871</u>	<u>14.69</u>	<u><1</u>	<u>200</u>	<u>10.08</u>	<u>0</u>	<u>0.42</u>	<u>-137.2</u>
<u>1510</u>	<u>6.24</u>	<u>0.875</u>	<u>14.17</u>	<u><1</u>	<u>200</u>	<u>10.08</u>	<u>0</u>	<u>0.40</u>	<u>-135.8</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1510</u>	<u>6.24</u>	<u>0.875</u>	<u>14.17</u>	<u><1</u>	<u>200</u>	<u>10.08</u>	<u>0</u>	<u>0.40</u>	<u>-135.8</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.494 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW 26(17.5)-62060617-1515 Time 1515

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	<u>36</u>	<u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	<u>26</u>	<u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	<u>1P</u>	
Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u>			

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly

Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 26(28.8)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel LA Date 6/6/17 Start Time 1315 Weather Sunny, 78F

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 9.99 Depth to Product - Product Thickness -
 Total Casing Depth 28.77 Borehole Diameter _____ Approx. Pump Depth 27 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Baller

Pump Started 1325 Pump Stopped 1420 Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1330</u>	<u>6.16</u>	<u>1.133</u>	<u>14.87</u>	<u><1</u>	<u>200</u>	<u>9.99</u>	<u>0.05</u>	<u>1.62</u>	<u>-99.0</u>
<u>1335</u>	<u>6.04</u>	<u>1.156</u>	<u>14.97</u>	<u><1</u>	<u>200</u>	<u>9.99</u>	<u>0.05</u>	<u>1.03</u>	<u>-93.6</u>
<u>1340</u>	<u>5.96</u>	<u>1.184</u>	<u>14.38</u>	<u><1</u>	<u>200</u>	<u>9.99</u>	<u>0.05</u>	<u>0.52</u>	<u>-84.0</u>
<u>1345</u>	<u>5.96</u>	<u>1.173</u>	<u>14.39</u>	<u><1</u>	<u>200</u>	<u>9.99</u>	<u>0.05</u>	<u>0.56</u>	<u>-80.6</u>
<u>1350</u>	<u>5.94</u>	<u>1.161</u>	<u>14.41</u>	<u><1</u>	<u>200</u>	<u>9.99</u>	<u>0.05</u>	<u>0.45</u>	<u>-77.5</u>
<u>1355</u>	<u>5.93</u>	<u>1.153</u>	<u>14.43</u>	<u><1</u>	<u>200</u>	<u>9.99</u>	<u>0.05</u>	<u>0.42</u>	<u>-75.3</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time 1355 pH 5.93 SC 1.153 Temp 14.43 Turb. <1 Flow Rate 200 DTW 9.99 Drawdown 0.05 DO 0.42 ORP -75.3

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.40 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW 26(28.8) - 6060617-1400 Time 1400

Analyses (check)	Bottle #/Type	Preservative	Dissolved Gases	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	<input checked="" type="checkbox"/>	<u>36</u>	<u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u>	<u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u>	
			Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u>	

Other: Other:
 MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 26(58.2)
 Project Number 3359-15-1040 Date 6-17 Start Time 1200 Weather Sunny, 74°F
 Sampling Personnel WT (Use: Well name)

MEASUREMENT SUMMARY:

Measuring Point TOL Depth to Water 9.40 Depth to Product _____ Product Thickness _____
 Total Casing Depth 98.23 Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1205 Pump Stopped 1310 Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1215</u>	<u>6.95</u>	<u>0.918</u>	<u>15.63</u>	<u><1</u>	<u>200</u>	<u>9.41</u>	<u>0.07</u>	<u>0.92</u>	<u>-158.5</u>
<u>1220</u>	<u>6.83</u>	<u>0.918</u>	<u>15.64</u>	<u><1</u>	<u>200</u>	<u>9.41</u>	<u>0.07</u>	<u>0.84</u>	<u>-156.7</u>
<u>1225</u>	<u>6.79</u>	<u>0.918</u>	<u>15.66</u>	<u><1</u>	<u>200</u>	<u>9.41</u>	<u>0.07</u>	<u>0.72</u>	<u>-158.8</u>
<u>1230</u>	<u>6.63</u>	<u>0.913</u>	<u>15.61</u>	<u><1</u>	<u>200</u>	<u>9.41</u>	<u>0.11</u>	<u>0.57</u>	<u>-155.6</u>
<u>1235</u>	<u>6.57</u>	<u>0.900</u>	<u>15.48</u>	<u><1</u>	<u>200</u>	<u>9.41</u>	<u>0.01</u>	<u>0.53</u>	<u>-155.2</u>
<u>1240</u>	<u>6.54</u>	<u>0.907</u>	<u>15.48</u>	<u><1</u>	<u>200</u>	<u>9.41</u>	<u>0.01</u>	<u>0.49</u>	<u>-154.9</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1240</u>	<u>6.54</u>	<u>0.907</u>	<u>15.48</u>	<u><1</u>	<u>200</u>	<u>9.41</u>	<u>0.01</u>	<u>0.49</u>	<u>-154.9</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.44 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name <u>ATR-MW 26(58.2) - Grabbed 7-1245</u>		Time <u>1245</u>		Bottle Type:	
Analyses (check) Bottle #/Type Preservative		Bottle #/Type Preservative		G = Glass	
VOCs <input checked="" type="checkbox"/>	<u>361</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>361</u>	<u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u>	<u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u>	
Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>		<u>1P</u>		Preservative Codes:	
Other: <input type="checkbox"/>		Other: <input type="checkbox"/>		1 = HCL 4 = NaOH	
MS/MSD _____	Blind Dup _____	Blind Dup Name _____	TB _____	2 = HNO ₃ 5 = BAC	
				3 = H ₂ SO ₄ 6 = Na ₃ PO ₄	



GROUNDWATER/SURFACE WATER SAMPLING FORM

Amec Foster Wheeler Environment & Infrastructure. Inc.

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW ~~6050617~~ E801
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel [Signature] Date 6-6-17 Start Time _____ Weather _____

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water _____ Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth _____ Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started _____ Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Comments: Collected through contaminated pump head w/ Lab DI between 212 (7.5) & 0W5 (44)

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration _____ mV
 SC Reference Solution _____ mS/cm Turbidity Cal. Solution _____ NTUs

Sample Name ATR-MW E801-6050617 Time 1100

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	Dissolved Gasses <input type="checkbox"/>	_____
TOC + NO ₃ <input type="checkbox"/>	_____	_____	VFA <input type="checkbox"/>	_____
Fe/Mn <input type="checkbox"/>	_____	_____	DHC <input type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____	_____	Alkalinity + Anions (Cl-, SO ₄) <input type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____	_____	Other: <input type="checkbox"/>	_____

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly

Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW ZVI 2 (12.5)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel S.P. Date 6/6/17 Start Time 1000 Weather 74° F Sunny

MEASUREMENT SUMMARY:
 Measuring Point TBC Depth to Water 8.12 Depth to Product _____ Product Thickness NA
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 16 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1005 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1015</u>	<u>7.24</u>	<u>0.805</u>	<u>13.29</u>	<u>12.4</u>	<u>200</u>	<u>8.12</u>	<u>0</u>	<u>1.59</u>	<u>-173.8</u>
<u>1020</u>	<u>7.23</u>	<u>0.811</u>	<u>13.29</u>	<u>17.3</u>	<u>200</u>	<u>8.12</u>	<u>0</u>	<u>1.45</u>	<u>-174.0</u>
<u>1025</u>	<u>7.24</u>	<u>0.809</u>	<u>13.33</u>	<u>5.6</u>	<u>200</u>	<u>8.12</u>	<u>0</u>	<u>1.17</u>	<u>-173.6</u>
<u>1030</u>	<u>7.24</u>	<u>0.810</u>	<u>13.32</u>	<u>8.2</u>	<u>200</u>	<u>8.12</u>	<u>0</u>	<u>1.06</u>	<u>-175.2</u>
<u>1035</u>	<u>7.25</u>	<u>0.810</u>	<u>13.31</u>	<u>8.0</u>	<u>200</u>	<u>8.12</u>	<u>0</u>	<u>0.98</u>	<u>-179.1</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1035 pH 7.25 SC 0.810 Temp 13.31 Turb. 8.0 Flow Rate 200 DTW 8.12 Drawdown 0 DO 0.98 ORP -179.1

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW ZVI 2 (12.5) - 3050617 Time 1035

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3G</u>	<u>1</u>	<u>3G</u>	<u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	<u>2G</u>	<u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	<u>1P</u>	<u>-</u>
Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u>	<u>-</u>	<u>1P</u>	<u>-</u>

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly

Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW 2112 (32.5)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel S.P. Date 6-6-17 Start Time 0840 Weather _____

MEASUREMENT SUMMARY:
 Measuring Point TC Depth to Water 9.00 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 30 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 0905 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>0915</u>	<u>6.65</u>	<u>1.213</u>	<u>14.09</u>	<u>9.7</u>	<u>200</u>	<u>9.00</u>	<u>0</u>	<u>2.09</u>	<u>-108.4</u>
<u>0920</u>	<u>6.66</u>	<u>1.213</u>	<u>14.05</u>	<u>6.2</u>	<u>200</u>	<u>9.00</u>	<u>0</u>	<u>1.92</u>	<u>-109.1</u>
<u>0925</u>	<u>6.71</u>	<u>1.216</u>	<u>14.05</u>	<u>7.1</u>	<u>200</u>	<u>9.00</u>	<u>0</u>	<u>1.90</u>	<u>-109.1</u>
<u>0930</u>	<u>6.73</u>	<u>1.214</u>	<u>14.04</u>	<u>6.0</u>	<u>200</u>	<u>9.00</u>	<u>0</u>	<u>1.87</u>	<u>-109.0</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>0930</u>	<u>6.73</u>	<u>1.214</u>	<u>14.04</u>	<u>6.0</u>	<u>200</u>	<u>9.00</u>	<u>0</u>	<u>1.87</u>	<u>-109.0</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.44 mS/cm (3.5) Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW 2112 (32.5) 6050617 Time 0930

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3G</u>	<u>1</u>	<u>3G</u>	<u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	<u>2G</u>	<u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	<u>1P</u>	
Alkalinity + Anions (Cl-, SO4) <input checked="" type="checkbox"/>	<u>1P</u>			
Dissolved Gases <input checked="" type="checkbox"/>				
VFA <input checked="" type="checkbox"/>				
DHC <input checked="" type="checkbox"/>				

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type: G = Glass, P = Poly
 Preservative Codes: 1 = HCL, 2 = HNO₃, 3 = H₂SO₄, 4 = NaOH, 5 = BAC, 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location	<u>TFS Rochester</u>	Surface Water <input type="checkbox"/>	Groundwater <input checked="" type="checkbox"/>	Sample ID	<u>ATR-MW <u>cus (16)</u></u>
Project Number	<u>3359-15-1040</u>			(Use: Well name)	
Sampling Personnel	<u>S. Parhyka</u>	Date	<u>6-6-17</u>	Start Time	<u>1300</u>
		Weather	<u>75°F Sunny</u>		

MEASUREMENT SUMMARY:

Measuring Point	<u>TBC</u>	Depth to Water	<u>8.18</u>	Depth to Product	_____	Product Thickness	_____
Total Casing Depth	_____	Borehole Diameter	_____	Approx. Pump Depth	<u>14.5</u>	Feet	
Screen Interval	<u>top</u>	<u>bottom</u>	_____	Feet			

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1305 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1315</u>	<u>6.95</u>	<u>0.653</u>	<u>14.31</u>	<u>25.7</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>2.03</u>	<u>-120.5</u>
<u>1320</u>	<u>6.85</u>	<u>0.656</u>	<u>14.37</u>	<u>20.3</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>1.75</u>	<u>-118.2</u>
<u>1325</u>	<u>6.83</u>	<u>0.657</u>	<u>14.32</u>	<u>14.0</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>1.20</u>	<u>-122.0</u>
<u>1330</u>	<u>6.85</u>	<u>0.660</u>	<u>14.35</u>	<u>67.0</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>0.98</u>	<u>-121.3</u>
<u>1335</u>	<u>6.91</u>	<u>0.667</u>	<u>14.34</u>	<u>24.5</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>0.90</u>	<u>-123.2</u>
<u>1340</u>	<u>6.94</u>	<u>0.668</u>	<u>14.37</u>	<u>10.5</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>0.90</u>	<u>-124.7</u>
<u>1345</u>	<u>6.96</u>	<u>0.668</u>	<u>14.35</u>	<u>8.8</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>0.84</u>	<u>-128.3</u>
<u>1350</u>	<u>6.99</u>	<u>0.669</u>	<u>14.34</u>	<u>4.4</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>0.78</u>	<u>-131.9</u>
<u>1355</u>	<u>6.99</u>	<u>0.669</u>	<u>14.36</u>	<u>4.1</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>0.76</u>	<u>-131.7</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1355</u>	<u>6.99</u>	<u>0.669</u>	<u>14.36</u>	<u>4.1</u>	<u>200</u>	<u>8.19</u>	<u>.01</u>	<u>0.76</u>	<u>-131.7</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW cus (16) - 6050617 Time 1355

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative	
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1P</u>	<u>36</u>	<u>6</u>	
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	<u>26</u>	<u>5</u>	
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	<u>1P</u>	<u>0</u>	
		Alkalinity + Anions (Cl-, SO4)	<input checked="" type="checkbox"/>	<u>1P</u>	<u>0</u>

Dissolved Gasses VFA DHC

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type: G = Glass P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW ~~005~~ (35)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel S. Partridge Date 6-6-17 Start Time 1210 Weather 74° F Sunny

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 7.35 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 32.5 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1215 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1205</u>	<u>6.93</u>	<u>0.924</u>	<u>14.53</u>	<u>5.7</u>	<u>200</u>	<u>7.35</u>	<u>0</u>	<u>2.95</u>	<u>-123.2</u>
<u>1230</u>	<u>6.79</u>	<u>0.905</u>	<u>14.42</u>	<u>5.7</u>	<u>200</u>	<u>7.35</u>	<u>0</u>	<u>1.66</u>	<u>-124.7</u>
<u>1235</u>	<u>6.77</u>	<u>0.901</u>	<u>14.41</u>	<u>7.4</u>	<u>200</u>	<u>7.35</u>	<u>0</u>	<u>1.53</u>	<u>-121.3</u>
<u>1240</u>	<u>6.72</u>	<u>0.798</u>	<u>14.40</u>	<u>6.0</u>	<u>200</u>	<u>7.35</u>	<u>0</u>	<u>1.49</u>	<u>-121.9</u>
<u>1245</u>	<u>6.70</u>	<u>0.794</u>	<u>14.39</u>	<u>2.3</u>	<u>200</u>	<u>7.35</u>	<u>0</u>	<u>1.43</u>	<u>-121.0</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1245</u>	<u>6.70</u>	<u>0.794</u>	<u>14.39</u>	<u>2.3</u>	<u>200</u>	<u>7.35</u>	<u>0</u>	<u>1.43</u>	<u>-121.0</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 2.49 mS/cm Turbidity Cal. Solution 0.126 NTUs

Sample Name ATR-MW (35) - 6060617 Time 1245

Analyses (check)	Bottle #/Type	Preservative	Dissolved Gasses	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	<input checked="" type="checkbox"/>	<u>36</u>	<u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>36</u>	<u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u>	<u>0</u>
		Alkalinity + Anions (Cl-, SO4) <input checked="" type="checkbox"/>		<u>1P</u>	<u>0</u>

Bottle Type:
 G = Glass
 P = Poly
 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄

Other: Other:
 MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____



GROUNDWATER/SURFACE WATER SAMPLING FORM

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW ~~OWS~~(44)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel S. Partridge Date 6-6-17 Start Time 1100 Weather 74° Sunny

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 7.40 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 42 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1120 Pump Stopped _____ Total Gallons _____

Time (24-hr)	pH (S.U.)	SC (mS/cm)	Temp (°C)	Turb. (NTU)	Flow Rate (ml/min)	DTW (ft)	Drawdown (ft)	DO (mg/L)	ORP (mV)
<u>1130</u>	<u>6.79</u>	<u>1.999</u>	<u>17.35</u>	<u>60.6</u>	<u>200</u>	<u>7.40</u>	<u>0</u>	<u>2.01</u>	<u>-134.7</u>
<u>1135</u>	<u>6.75</u>	<u>2.021</u>	<u>17.09</u>	<u>7.7</u>	<u>200</u>	<u>7.40</u>	<u>0</u>	<u>2.04</u>	<u>-135.4</u>
<u>1140</u>	<u>6.72</u>	<u>2.038</u>	<u>17.04</u>	<u>6.2</u>	<u>200</u>	<u>7.40</u>	<u>0</u>	<u>1.98</u>	<u>-135.4</u>
<u>1145</u>	<u>6.71</u>	<u>2.035</u>	<u>17.03</u>	<u>8.3</u>	<u>200</u>	<u>7.40</u>	<u>0</u>	<u>1.21</u>	<u>-133.9</u>
<u>1150</u>	<u>6.72</u>	<u>2.044</u>	<u>17.03</u>	<u>7.8</u>	<u>200</u>	<u>7.40</u>	<u>0</u>	<u>1.21</u>	<u>-133.8</u>
<u>1155</u>	<u>6.72</u>	<u>2.047</u>	<u>17.02</u>	<u>8.1</u>	<u>200</u>	<u>7.40</u>	<u>0</u>	<u>1.20</u>	<u>-133.6</u>

Stabilization Criteria: ±3% ±3% ±10 ±10% ±10

Final:
 Time 1155 pH 6.72 SC 2.047 Temp 17.02 Turb. 8.1 Flow Rate 200 DTW 7.40 Drawdown 0 DO 1.20 ORP -133.6

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/126 NTUs

Sample Name ATR-MW ~~OWS~~(44) - G050617 Time 1155 Bottle Type: _____

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>36</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>36</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1P</u>	<u>3</u>	VFA <input checked="" type="checkbox"/>	<u>26</u> <u>5</u>
Fe/Mn <input checked="" type="checkbox"/>	<u>1P</u>	<u>2</u>	DHC <input checked="" type="checkbox"/>	<u>1P</u> <u>-</u>
		Alkalinity + Anions (Cl-, SO ₄) <input checked="" type="checkbox"/>	<u>1P</u>	<u>-</u>

Other: Other:

MS/MSD _____ Blind Dup _____ Blind Dup Name _____ TB _____

Bottle Type:
 G = Glass
 P = Poly

 Preservative Codes:
 1 = HCL 4 = NaOH
 2 = HNO₃ 5 = BAC
 3 = H₂SO₄ 6 = Na₃PO₄





Textron, Inc.
TORX Facility Remediation
Report of Performance Monitoring

APPENDIX B

LABORATORY REPORTS AND DATA VALIDATION REPORT



05-Jul-2017

Paul Stork
AMEC Foster Wheeler
521 Byers Road, Suite 204
Miamisburg, OH 45342

Re: **TFS Rochester, IN 3359-14-1040**

Work Order: **1706567**

Dear Paul,

Revision: **1**

ALS Environmental received 58 samples on 09-Jun-2017 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 173.

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

Sincerely,

A handwritten signature in black ink that reads "Joseph Ribar".

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager

Certificate No: IN: C-MI-08

Report of Laboratory Analysis

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185

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Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Work Order: 1706567

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1706567-01	ATR-MW68-G060817	Water		6/8/2017 12:05	6/9/2017 14:00	<input type="checkbox"/>
1706567-02	ATR-MW72-G060817	Water		6/8/2017 11:05	6/9/2017 14:00	<input type="checkbox"/>
1706567-03	ATR-EB001-G060817	Water		6/8/2017 09:55	6/9/2017 14:00	<input type="checkbox"/>
1706567-04	ATR-MW77-G060817	Water		6/8/2017 10:00	6/9/2017 14:00	<input type="checkbox"/>
1706567-05	ATR-MW78-G060817	Water		6/8/2017 11:35	6/9/2017 14:00	<input type="checkbox"/>
1706567-06	ATR-MW76-G060817	Water		6/8/2017 13:40	6/9/2017 14:00	<input type="checkbox"/>
1706567-07	ATR-EB002-G060817	Water		6/8/2017 15:05	6/9/2017 14:00	<input type="checkbox"/>
1706567-08	ATR-FB001-G060817	Water		6/8/2017 15:20	6/9/2017 14:00	<input type="checkbox"/>
1706567-09	ATR-MW24(55.4)-G060717	Water		6/7/2017 08:40	6/9/2017 14:00	<input type="checkbox"/>
1706567-10	ATR-EB002-G060717	Water		6/7/2017 09:10	6/9/2017 14:00	<input type="checkbox"/>
1706567-11	ATR-MW14-G060717	Water		6/7/2017 09:55	6/9/2017 14:00	<input type="checkbox"/>
1706567-12	ATR-MW20(51)-G060717	Water		6/7/2017 11:35	6/9/2017 14:00	<input type="checkbox"/>
1706567-13	ATR-MW20(35)-G060717	Water		6/7/2017 13:00	6/9/2017 14:00	<input type="checkbox"/>
1706567-14	ATR-MW20(35)-G060717R	Water		6/7/2017 13:00	6/9/2017 14:00	<input type="checkbox"/>
1706567-15	ATR-MW6C-G060717	Water		6/7/2017 14:45	6/9/2017 14:00	<input type="checkbox"/>
1706567-16	ATR-MW62(36)-G060717	Water		6/7/2017 16:00	6/9/2017 14:00	<input type="checkbox"/>
1706567-17	ATR-MW67-G060817	Water		6/8/2017 14:30	6/9/2017 14:00	<input type="checkbox"/>
1706567-18	ATR-MW71-G060817	Water		6/8/2017 13:15	6/9/2017 14:00	<input type="checkbox"/>
1706567-19	ATR-MW16-G060617	Water		6/6/2017 11:20	6/9/2017 14:00	<input type="checkbox"/>
1706567-20	ATR-MW17-G060617	Water		6/6/2017 10:05	6/9/2017 14:00	<input type="checkbox"/>
1706567-21	ATR-OW3(55)-G060717	Water		6/7/2017 09:05	6/9/2017 14:00	<input type="checkbox"/>
1706567-22	ATR-OW3(35)-G060717	Water		6/7/2017 10:10	6/9/2017 14:00	<input type="checkbox"/>
1706567-23	ATR-OW1(39)-G060717	Water		6/7/2017 11:25	6/9/2017 14:00	<input type="checkbox"/>
1706567-24	ATR-OW1(28)-G060717	Water		6/7/2017 12:35	6/9/2017 14:00	<input type="checkbox"/>
1706567-25	ATR-MW82-G060717	Water		6/7/2017 13:55	6/9/2017 14:00	<input type="checkbox"/>
1706567-26	ATR-EB001-G060717	Water		6/7/2017 14:15	6/9/2017 14:00	<input type="checkbox"/>
1706567-27	ATR-MW13-G060717	Water		6/7/2017 15:00	6/9/2017 14:00	<input type="checkbox"/>
1706567-28	ATR-MW59(29)-G060717	Water		6/7/2017 13:45	6/9/2017 14:00	<input type="checkbox"/>
1706567-29	ATR-MW59(29)-G060717R	Water		6/7/2017 13:45	6/9/2017 14:00	<input type="checkbox"/>
1706567-30	ATR-OW4(35)-G060717	Water		6/7/2017 08:35	6/9/2017 14:00	<input type="checkbox"/>
1706567-31	ATR-MW81(27)-G060717	Water		6/7/2017 10:35	6/9/2017 14:00	<input type="checkbox"/>
1706567-32	ATR-PM2-G060717	Water		6/7/2017 15:15	6/9/2017 14:00	<input type="checkbox"/>
1706567-33	ATR-PM3-G060717	Water		6/7/2017 16:40	6/9/2017 14:00	<input type="checkbox"/>
1706567-34	ATR-EB003-G060617	Water		6/7/2017 17:05	6/9/2017 14:00	<input type="checkbox"/>
1706567-35	ATR-ZVI2(32.5)-G060617	Water		6/6/2017 09:30	6/9/2017 14:00	<input type="checkbox"/>
1706567-36	ATR-ZVI2(17.5)-G060617	Water		6/6/2017 10:35	6/9/2017 14:00	<input type="checkbox"/>
1706567-37	ATR-EB001-G060617	Water		6/6/2017 11:00	6/9/2017 14:00	<input type="checkbox"/>
1706567-38	ATR-OW5(44)-G060617	Water		6/6/2017 11:55	6/9/2017 14:00	<input type="checkbox"/>
1706567-39	ATR-OW5(35)-G060617	Water		6/6/2017 12:45	6/9/2017 14:00	<input type="checkbox"/>

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Work Order: 1706567

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1706567-40	ATR-OW5(16)-G060617	Water		6/6/2017 13:55	6/9/2017 14:00	<input type="checkbox"/>
1706567-41	ATR-OW2(53)-G060617	Water		6/6/2017 15:15	6/9/2017 14:00	<input type="checkbox"/>
1706567-42	ATR-OW2(33)-G060617	Water		6/6/2017 16:20	6/9/2017 14:00	<input type="checkbox"/>
1706567-43	ATR-EB003-G060617	Water		6/6/2017 16:40	6/9/2017 14:00	<input type="checkbox"/>
1706567-44	ATR-OW4(54)-G060617	Water		6/6/2017 16:15	6/9/2017 14:00	<input type="checkbox"/>
1706567-45	ATR-MW25(16.4)-G060617	Water		6/6/2017 14:25	6/9/2017 14:00	<input type="checkbox"/>
1706567-46	ATR-MW25(16.4)-G060617R	Water		6/6/2017 14:25	6/9/2017 14:00	<input type="checkbox"/>
1706567-47	ATR-MW25(32.6)-G060617	Water		6/6/2017 13:20	6/9/2017 14:00	<input type="checkbox"/>
1706567-48	ATR-MW25(45.2)-G060617	Water		6/6/2017 12:05	6/9/2017 14:00	<input type="checkbox"/>
1706567-49	ATR-MW15-G060617	Water		6/6/2017 10:35	6/9/2017 14:00	<input type="checkbox"/>
1706567-50	ATR-MW24(24.9)-G060617	Water		6/6/2017 16:35	6/9/2017 14:00	<input type="checkbox"/>
1706567-51	ATR-MW26(17.5)-G060617	Water		6/6/2017 15:15	6/9/2017 14:00	<input type="checkbox"/>
1706567-52	ATR-MW26(28.8)-G060617	Water		6/6/2017 14:00	6/9/2017 14:00	<input type="checkbox"/>
1706567-53	ATR-MW26(58.2)-G060617	Water		6/6/2017 12:45	6/9/2017 14:00	<input type="checkbox"/>
1706567-54	ATR-EB002-G060617	Water		6/6/2017 11:55	6/9/2017 14:00	<input type="checkbox"/>
1706567-55	ATR-TB001-G060617	Water		6/6/2017	6/9/2017 14:00	<input type="checkbox"/>
1706567-56	ATR-TB001-G060717	Water		6/7/2017	6/9/2017 14:00	<input type="checkbox"/>
1706567-57	ATR-TB001-G060817	Water		6/8/2017	6/9/2017 14:00	<input type="checkbox"/>
1706567-58	ATR-MW12-G060717	Water		6/7/2017 16:20	6/9/2017 14:00	<input type="checkbox"/>

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Work Order: 1706567

Case Narrative

Samples for the above noted Work Order were received on 06/09/2017. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

Report was revised to correct identification for lab ID1706567-015.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

Batch R213832, Method 8260, Sample 1706567-22A MS: The MS/MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: 1,2-Dibromoethane.

Batch R213832, Method 8260, Sample VLCSW1-170614: The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte. 1,2-Dibromoethane

Batch R213911, Method 8260, Sample 1706567-33A: The reporting limit is elevated due to dilution for high concentrations of non-target analytes.

Batch R213997, Method 8260, Sample 1706567-17A MS: The MS/MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Bromomethane

Batch R213997, Method 8260, Sample 1706567-17A MSD: The RPD between the MS and MSD was outside the control limit. The corresponding result in the parent sample should be considered estimated for this analyte: Bromomethane

Batch R214069a, Method 8260, Sample VLCSW1-170616: The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Work Order: 1706567

Case Narrative

necessary for this analyte. 1,2-Dibromoethane

No other deviations or anomalies were noted.

Metals:

Batch 103140, Method 6020, Sample 1706567-19DMS: The matrix spike recovery was outside of the control limit. However, the matrix spike duplicate recovery and the RPD between the MS and MSD were in control. No qualification is required for this analyte: Mn

Batch 103201, Method 6020, Sample 1706567-40DMS: The matrix spike recovery was outside of the control limit. However, the matrix spike duplicate recovery and the RPD between the MS and MSD were in control. No qualification is required for this analyte: Mn

No other deviations or anomalies were noted.

Wet Chemistry:

Batch R213713, Method 353.2, Sample 1706567-38B MS: The MS/MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Nitrate-Nitrite

Batch R213713, Method 353.2, Sample 1706567-52B MS: The MS/MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Nitrate-Nitrite

No other deviations or anomalies were noted.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW68-G060817
Collection Date: 6/8/2017 12:05 PM

Work Order: 1706567
Lab ID: 1706567-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 15:22		Analyst: LR
Iron	52		0.080	mg/L	1	6/13/2017 09:54 PM
Manganese	1.9		0.050	mg/L	10	6/16/2017 12:56 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
1,1,2,2-Tetrachloroethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
1,1,2-Trichloroethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
1,1-Dichloroethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
1,1-Dichloroethene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
1,2-Dichloroethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
1,2-Dichloropropane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
2-Butanone	110		10	µg/L	2	6/16/2017 08:37 AM
2-Hexanone	ND		10	µg/L	2	6/16/2017 08:37 AM
4-Methyl-2-pentanone	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Acetone	98		20	µg/L	2	6/16/2017 08:37 AM
Benzene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Bromodichloromethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Bromoform	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Bromomethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Carbon disulfide	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Carbon tetrachloride	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Chlorobenzene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Chloroethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Chloroform	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Chloromethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
cis-1,2-Dichloroethene	66		2.0	µg/L	2	6/16/2017 08:37 AM
cis-1,3-Dichloropropene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Dibromochloromethane	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Ethylbenzene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
m,p-Xylene	ND		4.0	µg/L	2	6/16/2017 08:37 AM
Methylene chloride	ND		10	µg/L	2	6/16/2017 08:37 AM
o-Xylene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Styrene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Tetrachloroethene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Toluene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
trans-1,2-Dichloroethene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
trans-1,3-Dichloropropene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Trichloroethene	ND		2.0	µg/L	2	6/16/2017 08:37 AM
Vinyl chloride	540		25	µg/L	25	6/14/2017 05:04 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW68-G060817
Collection Date: 6/8/2017 12:05 PM

Work Order: 1706567
Lab ID: 1706567-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		6.0	µg/L	2	6/16/2017 08:37 AM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	2	6/16/2017 08:37 AM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	25	6/14/2017 05:04 PM
Surr: 4-Bromofluorobenzene	90.6		80-110	%REC	25	6/14/2017 05:04 PM
Surr: 4-Bromofluorobenzene	95.9		80-110	%REC	2	6/16/2017 08:37 AM
Surr: Dibromofluoromethane	109		85-115	%REC	25	6/14/2017 05:04 PM
Surr: Dibromofluoromethane	108		85-115	%REC	2	6/16/2017 08:37 AM
Surr: Toluene-d8	94.4		85-110	%REC	25	6/14/2017 05:04 PM
Surr: Toluene-d8	95.0		85-110	%REC	2	6/16/2017 08:37 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	720		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	720		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	110		25	mg/L	25	6/20/2017 09:30 AM
Sulfate	ND		5.0	mg/L	5	6/20/2017 12:36 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	350		120	mg/L	250	6/12/2017 12:33 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW72-G060817
Collection Date: 6/8/2017 11:05 AM

Work Order: 1706567
Lab ID: 1706567-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 15:22		Analyst: LR
Iron	71		0.080	mg/L	1	6/13/2017 09:59 PM
Manganese	3.1		0.050	mg/L	10	6/16/2017 01:01 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
2-Butanone	47		5.0	µg/L	1	6/14/2017 05:30 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 05:30 PM
4-Methyl-2-pentanone	2.4		1.0	µg/L	1	6/14/2017 05:30 PM
Acetone	81		10	µg/L	1	6/14/2017 05:30 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
cis-1,2-Dichloroethene	8.8		1.0	µg/L	1	6/14/2017 05:30 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 05:30 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 05:30 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Toluene	30		1.0	µg/L	1	6/14/2017 05:30 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 05:30 PM
Vinyl chloride	6.5		1.0	µg/L	1	6/14/2017 05:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW72-G060817
Collection Date: 6/8/2017 11:05 AM

Work Order: 1706567
Lab ID: 1706567-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 05:30 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	106		75-120	%REC	1	6/14/2017 05:30 PM
<i>Surr: 4-Bromofluorobenzene</i>	101		80-110	%REC	1	6/14/2017 05:30 PM
<i>Surr: Dibromofluoromethane</i>	107		85-115	%REC	1	6/14/2017 05:30 PM
<i>Surr: Toluene-d8</i>	96.0		85-110	%REC	1	6/14/2017 05:30 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	1,100		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	1,100		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	91		10	mg/L	10	6/20/2017 01:17 AM
Sulfate	ND		1.0	mg/L	1	6/20/2017 12:57 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	560		50	mg/L	100	6/12/2017 12:33 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-EB001-G060817

Lab ID: 1706567-03

Collection Date: 6/8/2017 09:55 AM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
2-Butanone	ND		5.0	µg/L	1	6/14/2017 02:54 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 02:54 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Acetone	ND		10	µg/L	1	6/14/2017 02:54 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 02:54 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 02:54 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Vinyl chloride	ND		1.0	µg/L	1	6/14/2017 02:54 PM
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 02:54 PM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	1	6/14/2017 02:54 PM
Surr: 4-Bromofluorobenzene	90.8		80-110	%REC	1	6/14/2017 02:54 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/14/2017 02:54 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler**Project:** TFS Rochester, IN 3359-14-1040**Sample ID:** ATR-EB001-G060817**Collection Date:** 6/8/2017 09:55 AM**Work Order:** 1706567**Lab ID:** 1706567-03**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.2		85-110	%REC	1	6/14/2017 02:54 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW77-G060817
 Collection Date: 6/8/2017 10:00 AM

Work Order: 1706567
 Lab ID: 1706567-04
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3005A 6/13/17 15:22	Analyst: LR
Iron	2.1		0.080	mg/L	1	6/13/2017 10:04 PM
Manganese	0.27		0.0050	mg/L	1	6/13/2017 10:04 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
2-Butanone	8.0		5.0	µg/L	1	6/14/2017 05:56 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 05:56 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Acetone	10		10	µg/L	1	6/14/2017 05:56 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
cis-1,2-Dichloroethene	2.9		1.0	µg/L	1	6/14/2017 05:56 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 05:56 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 05:56 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 05:56 PM
Vinyl chloride	53		1.0	µg/L	1	6/14/2017 05:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW77-G060817
Collection Date: 6/8/2017 10:00 AM

Work Order: 1706567
Lab ID: 1706567-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 05:56 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	109		75-120	%REC	1	6/14/2017 05:56 PM
<i>Surr: 4-Bromofluorobenzene</i>	90.8		80-110	%REC	1	6/14/2017 05:56 PM
<i>Surr: Dibromofluoromethane</i>	108		85-115	%REC	1	6/14/2017 05:56 PM
<i>Surr: Toluene-d8</i>	94.3		85-110	%REC	1	6/14/2017 05:56 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	170		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	170		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	12		2.0	mg/L	2	6/20/2017 01:37 AM
Sulfate	ND		2.0	mg/L	2	6/20/2017 01:37 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	47		5.0	mg/L	10	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW78-G060817
 Collection Date: 6/8/2017 11:35 AM

Work Order: 1706567
 Lab ID: 1706567-05
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 15:22		Analyst: LR
Iron	6.4		0.080	mg/L	1	6/13/2017 10:09 PM
Manganese	0.86		0.0050	mg/L	1	6/13/2017 10:09 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 03:07 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 03:07 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Acetone	ND		10	µg/L	1	6/15/2017 03:07 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 03:07 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 03:07 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 03:07 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 03:07 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW78-G060817
Collection Date: 6/8/2017 11:35 AM

Work Order: 1706567
Lab ID: 1706567-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 03:07 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	108		75-120	%REC	1	6/15/2017 03:07 PM
<i>Surr: 4-Bromofluorobenzene</i>	92.2		80-110	%REC	1	6/15/2017 03:07 PM
<i>Surr: Dibromofluoromethane</i>	108		85-115	%REC	1	6/15/2017 03:07 PM
<i>Surr: Toluene-d8</i>	93.6		85-110	%REC	1	6/15/2017 03:07 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	500		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	500		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	11		1.0	mg/L	1	6/20/2017 01:57 AM
Sulfate	ND		1.0	mg/L	1	6/20/2017 01:57 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	150		50	mg/L	100	6/12/2017 12:33 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW76-G060817
 Collection Date: 6/8/2017 01:40 PM

Work Order: 1706567
 Lab ID: 1706567-06
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 15:22		Analyst: LR
Iron	41		0.080	mg/L	1	6/13/2017 11:35 PM
Manganese	1.3		0.0050	mg/L	1	6/13/2017 11:35 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		50	µg/L	50	6/16/2017 09:02 AM
1,1,2,2-Tetrachloroethane	ND		50	µg/L	50	6/16/2017 09:02 AM
1,1,2-Trichloroethane	ND		50	µg/L	50	6/16/2017 09:02 AM
1,1-Dichloroethane	ND		50	µg/L	50	6/16/2017 09:02 AM
1,1-Dichloroethene	ND		50	µg/L	50	6/16/2017 09:02 AM
1,2-Dichloroethane	ND		50	µg/L	50	6/16/2017 09:02 AM
1,2-Dichloropropane	ND		50	µg/L	50	6/16/2017 09:02 AM
2-Butanone	ND		250	µg/L	50	6/16/2017 09:02 AM
2-Hexanone	ND		250	µg/L	50	6/16/2017 09:02 AM
4-Methyl-2-pentanone	ND		50	µg/L	50	6/16/2017 09:02 AM
Acetone	ND		500	µg/L	50	6/16/2017 09:02 AM
Benzene	ND		50	µg/L	50	6/16/2017 09:02 AM
Bromodichloromethane	ND		50	µg/L	50	6/16/2017 09:02 AM
Bromoform	ND		50	µg/L	50	6/16/2017 09:02 AM
Bromomethane	ND		50	µg/L	50	6/16/2017 09:02 AM
Carbon disulfide	ND		50	µg/L	50	6/16/2017 09:02 AM
Carbon tetrachloride	ND		50	µg/L	50	6/16/2017 09:02 AM
Chlorobenzene	ND		50	µg/L	50	6/16/2017 09:02 AM
Chloroethane	ND		50	µg/L	50	6/16/2017 09:02 AM
Chloroform	ND		50	µg/L	50	6/16/2017 09:02 AM
Chloromethane	ND		50	µg/L	50	6/16/2017 09:02 AM
cis-1,2-Dichloroethene	630		50	µg/L	50	6/16/2017 09:02 AM
cis-1,3-Dichloropropene	ND		50	µg/L	50	6/16/2017 09:02 AM
Dibromochloromethane	ND		50	µg/L	50	6/16/2017 09:02 AM
Ethylbenzene	ND		50	µg/L	50	6/16/2017 09:02 AM
m,p-Xylene	ND		100	µg/L	50	6/16/2017 09:02 AM
Methylene chloride	ND		250	µg/L	50	6/16/2017 09:02 AM
o-Xylene	ND		50	µg/L	50	6/16/2017 09:02 AM
Styrene	ND		50	µg/L	50	6/16/2017 09:02 AM
Tetrachloroethene	ND		50	µg/L	50	6/16/2017 09:02 AM
Toluene	ND		50	µg/L	50	6/16/2017 09:02 AM
trans-1,2-Dichloroethene	ND		50	µg/L	50	6/16/2017 09:02 AM
trans-1,3-Dichloropropene	ND		50	µg/L	50	6/16/2017 09:02 AM
Trichloroethene	ND		50	µg/L	50	6/16/2017 09:02 AM
Vinyl chloride	11,000		500	µg/L	500	6/14/2017 06:22 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW76-G060817
Collection Date: 6/8/2017 01:40 PM

Work Order: 1706567
Lab ID: 1706567-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		150	µg/L	50	6/16/2017 09:02 AM
Surr: 1,2-Dichloroethane-d4	110		75-120	%REC	50	6/16/2017 09:02 AM
Surr: 1,2-Dichloroethane-d4	108		75-120	%REC	500	6/14/2017 06:22 PM
Surr: 4-Bromofluorobenzene	92.6		80-110	%REC	500	6/14/2017 06:22 PM
Surr: 4-Bromofluorobenzene	90.6		80-110	%REC	50	6/16/2017 09:02 AM
Surr: Dibromofluoromethane	108		85-115	%REC	500	6/14/2017 06:22 PM
Surr: Dibromofluoromethane	107		85-115	%REC	50	6/16/2017 09:02 AM
Surr: Toluene-d8	91.0		85-110	%REC	500	6/14/2017 06:22 PM
Surr: Toluene-d8	93.6		85-110	%REC	50	6/16/2017 09:02 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	630		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	630		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	110		10	mg/L	10	6/20/2017 02:38 AM
Sulfate	ND		1.0	mg/L	1	6/20/2017 02:18 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	500		50	mg/L	100	6/12/2017 12:33 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-EB002-G060817
 Collection Date: 6/8/2017 03:05 PM

Work Order: 1706567
 Lab ID: 1706567-07
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3005A 6/13/17 15:22	Analyst: LR
Iron	ND		0.080	mg/L	1	6/13/2017 11:41 PM
Manganese	ND		0.0050	mg/L	1	6/13/2017 11:41 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
2-Butanone	ND		5.0	µg/L	1	6/14/2017 03:20 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 03:20 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Acetone	ND		10	µg/L	1	6/14/2017 03:20 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 03:20 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 03:20 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 03:20 PM
Vinyl chloride	ND		1.0	µg/L	1	6/14/2017 03:20 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-EB002-G060817
Collection Date: 6/8/2017 03:05 PM

Work Order: 1706567
Lab ID: 1706567-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 03:20 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	107		75-120	%REC	1	6/14/2017 03:20 PM
<i>Surr: 4-Bromofluorobenzene</i>	88.7		80-110	%REC	1	6/14/2017 03:20 PM
<i>Surr: Dibromofluoromethane</i>	108		85-115	%REC	1	6/14/2017 03:20 PM
<i>Surr: Toluene-d8</i>	94.0		85-110	%REC	1	6/14/2017 03:20 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	ND		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	ND		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	ND		1.0	mg/L	1	6/20/2017 02:58 AM
Sulfate	ND		1.0	mg/L	1	6/20/2017 02:58 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	0.031		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	1.6		0.50	mg/L	1	6/12/2017 12:33 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-FB001-G060817

Lab ID: 1706567-08

Collection Date: 6/8/2017 03:20 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
2-Butanone	ND		5.0	µg/L	1	6/16/2017 10:45 AM
2-Hexanone	ND		5.0	µg/L	1	6/16/2017 10:45 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Acetone	ND		10	µg/L	1	6/16/2017 10:45 AM
Benzene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Bromoform	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Bromomethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Carbon disulfide	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Chlorobenzene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Chloroethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Chloroform	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Chloromethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Ethylbenzene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
m,p-Xylene	ND		2.0	µg/L	1	6/16/2017 10:45 AM
Methylene chloride	ND		5.0	µg/L	1	6/16/2017 10:45 AM
o-Xylene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Styrene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Toluene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Trichloroethene	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Vinyl chloride	ND		1.0	µg/L	1	6/16/2017 10:45 AM
Xylenes, Total	ND		3.0	µg/L	1	6/16/2017 10:45 AM
Surr: 1,2-Dichloroethane-d4	110		75-120	%REC	1	6/16/2017 10:45 AM
Surr: 4-Bromofluorobenzene	92.2		80-110	%REC	1	6/16/2017 10:45 AM
Surr: Dibromofluoromethane	110		85-115	%REC	1	6/16/2017 10:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler**Project:** TFS Rochester, IN 3359-14-1040**Sample ID:** ATR-FB001-G060817**Collection Date:** 6/8/2017 03:20 PM**Work Order:** 1706567**Lab ID:** 1706567-08**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	93.8		85-110	%REC	1	6/16/2017 10:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW24(55.4)-G060717
 Collection Date: 6/7/2017 08:40 AM

Work Order: 1706567
 Lab ID: 1706567-09
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3005A 6/13/17 15:22	Analyst: LR
Iron	14		0.080	mg/L	1	6/13/2017 11:46 PM
Manganese	0.30		0.0050	mg/L	1	6/13/2017 11:46 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
2-Butanone	13		5.0	µg/L	1	6/14/2017 06:48 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 06:48 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Acetone	66		10	µg/L	1	6/14/2017 06:48 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
cis-1,2-Dichloroethene	54		1.0	µg/L	1	6/14/2017 06:48 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 06:48 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 06:48 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
trans-1,2-Dichloroethene	5.3		1.0	µg/L	1	6/14/2017 06:48 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 06:48 PM
Vinyl chloride	92		1.0	µg/L	1	6/14/2017 06:48 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW24(55.4)-G060717
Collection Date: 6/7/2017 08:40 AM

Work Order: 1706567
Lab ID: 1706567-09
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 06:48 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	104		75-120	%REC	1	6/14/2017 06:48 PM
<i>Surr: 4-Bromofluorobenzene</i>	93.3		80-110	%REC	1	6/14/2017 06:48 PM
<i>Surr: Dibromofluoromethane</i>	107		85-115	%REC	1	6/14/2017 06:48 PM
<i>Surr: Toluene-d8</i>	92.7		85-110	%REC	1	6/14/2017 06:48 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	350		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	350		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	13		2.0	mg/L	2	6/20/2017 03:18 AM
Sulfate	ND		2.0	mg/L	2	6/20/2017 03:18 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	84		5.0	mg/L	10	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-EB002-G060717
 Collection Date: 6/7/2017 09:10 AM

Work Order: 1706567
 Lab ID: 1706567-10
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
2-Butanone	ND		5.0	µg/L	1	6/14/2017 03:46 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 03:46 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Acetone	ND		10	µg/L	1	6/14/2017 03:46 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 03:46 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 03:46 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Vinyl chloride	ND		1.0	µg/L	1	6/14/2017 03:46 PM
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 03:46 PM
Surr: 1,2-Dichloroethane-d4	110		75-120	%REC	1	6/14/2017 03:46 PM
Surr: 4-Bromofluorobenzene	93.3		80-110	%REC	1	6/14/2017 03:46 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/14/2017 03:46 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-EB002-G060717

Lab ID: 1706567-10

Collection Date: 6/7/2017 09:10 AM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	94.8		85-110	%REC	1	6/14/2017 03:46 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW14-G060717
Collection Date: 6/7/2017 09:55 AM

Work Order: 1706567
Lab ID: 1706567-11
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 15:22		Analyst: LR
Iron	7.3		0.080	mg/L	1	6/13/2017 11:51 PM
Manganese	0.28		0.0050	mg/L	1	6/13/2017 11:51 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
2-Butanone	7.8		5.0	µg/L	1	6/14/2017 07:14 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 07:14 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Acetone	ND		10	µg/L	1	6/14/2017 07:14 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
cis-1,2-Dichloroethene	1.5		1.0	µg/L	1	6/14/2017 07:14 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 07:14 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 07:14 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 07:14 PM
Vinyl chloride	ND		1.0	µg/L	1	6/14/2017 07:14 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Sample ID: ATR-MW14-G060717

Collection Date: 6/7/2017 09:55 AM

Work Order: 1706567

Lab ID: 1706567-11

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 07:14 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	109		75-120	%REC	1	6/14/2017 07:14 PM
<i>Surr: 4-Bromofluorobenzene</i>	94.4		80-110	%REC	1	6/14/2017 07:14 PM
<i>Surr: Dibromofluoromethane</i>	110		85-115	%REC	1	6/14/2017 07:14 PM
<i>Surr: Toluene-d8</i>	92.8		85-110	%REC	1	6/14/2017 07:14 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	310		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	310		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	10		1.0	mg/L	1	6/20/2017 03:38 AM
Sulfate	3.7		1.0	mg/L	1	6/20/2017 03:38 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	30		5.0	mg/L	10	6/12/2017 12:33 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW20(51)-G060717
Collection Date: 6/7/2017 11:35 AM

Work Order: 1706567
Lab ID: 1706567-12
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 15:22		Analyst: LR
Iron	14		0.080	mg/L	1	6/13/2017 11:56 PM
Manganese	0.23		0.0050	mg/L	1	6/13/2017 11:56 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
2-Butanone	ND		5.0	µg/L	1	6/14/2017 07:40 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 07:40 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Acetone	ND		10	µg/L	1	6/14/2017 07:40 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 07:40 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 07:40 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 07:40 PM
Vinyl chloride	ND		1.0	µg/L	1	6/14/2017 07:40 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW20(51)-G060717
Collection Date: 6/7/2017 11:35 AM

Work Order: 1706567
Lab ID: 1706567-12
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 07:40 PM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	6/14/2017 07:40 PM
Surr: 4-Bromofluorobenzene	93.6		80-110	%REC	1	6/14/2017 07:40 PM
Surr: Dibromofluoromethane	110		85-115	%REC	1	6/14/2017 07:40 PM
Surr: Toluene-d8	92.6		85-110	%REC	1	6/14/2017 07:40 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	270		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	270		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	7.5		1.0	mg/L	1	6/20/2017 04:39 AM
Sulfate	1.3		1.0	mg/L	1	6/20/2017 04:39 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	7.1		5.0	mg/L	10	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW20(35)-G060717
 Collection Date: 6/7/2017 01:00 PM

Work Order: 1706567
 Lab ID: 1706567-13
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 15:22		Analyst: LR
Iron	11		0.080	mg/L	1	6/14/2017 12:01 AM
Manganese	0.31		0.0050	mg/L	1	6/14/2017 12:01 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
2-Butanone	ND		5.0	µg/L	1	6/14/2017 08:05 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 08:05 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Acetone	ND		10	µg/L	1	6/14/2017 08:05 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 08:05 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 08:05 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 08:05 PM
Vinyl chloride	ND		1.0	µg/L	1	6/14/2017 08:05 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW20(35)-G060717
Collection Date: 6/7/2017 01:00 PM

Work Order: 1706567
Lab ID: 1706567-13
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 08:05 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	107		75-120	%REC	1	6/14/2017 08:05 PM
<i>Surr: 4-Bromofluorobenzene</i>	92.5		80-110	%REC	1	6/14/2017 08:05 PM
<i>Surr: Dibromofluoromethane</i>	108		85-115	%REC	1	6/14/2017 08:05 PM
<i>Surr: Toluene-d8</i>	94.7		85-110	%REC	1	6/14/2017 08:05 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	370		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	370		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	24		5.0	mg/L	5	6/20/2017 05:20 AM
Sulfate	2.2		1.0	mg/L	1	6/20/2017 04:59 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	6.7		0.50	mg/L	1	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW20(35)-G060717R
Collection Date: 6/7/2017 01:00 PM

Work Order: 1706567
Lab ID: 1706567-14
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 15:22		Analyst: LR
Iron	11		0.080	mg/L	1	6/14/2017 12:06 AM
Manganese	0.32		0.0050	mg/L	1	6/14/2017 12:06 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 01:22 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 01:22 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Acetone	ND		10	µg/L	1	6/15/2017 01:22 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 01:22 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 01:22 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 01:22 AM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 01:22 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW20(35)-G060717R
 Collection Date: 6/7/2017 01:00 PM

Work Order: 1706567
 Lab ID: 1706567-14
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 01:22 AM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	1	6/15/2017 01:22 AM
Surr: 4-Bromofluorobenzene	93.9		80-110	%REC	1	6/15/2017 01:22 AM
Surr: Dibromofluoromethane	105		85-115	%REC	1	6/15/2017 01:22 AM
Surr: Toluene-d8	94.2		85-110	%REC	1	6/15/2017 01:22 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	380		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	380		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	24		5.0	mg/L	5	6/20/2017 06:00 AM
Sulfate	1.6		1.0	mg/L	1	6/20/2017 05:40 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	7.0		0.50	mg/L	1	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW6C-G060717
 Collection Date: 6/7/2017 02:45 PM

Work Order: 1706567
 Lab ID: 1706567-15
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 15:22		Analyst: LR
Iron	2.1		0.080	mg/L	1	6/14/2017 12:11 AM
Manganese	0.57		0.0050	mg/L	1	6/14/2017 12:11 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
1,1-Dichloroethene	11		1.0	µg/L	1	6/15/2017 01:48 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 01:48 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 01:48 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Acetone	ND		10	µg/L	1	6/15/2017 01:48 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
cis-1,2-Dichloroethene	2,500		50	µg/L	50	6/16/2017 09:28 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 01:48 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 01:48 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
trans-1,2-Dichloroethene	27		1.0	µg/L	1	6/15/2017 01:48 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 01:48 AM
Vinyl chloride	980		50	µg/L	50	6/16/2017 09:28 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW6C-G060717
Collection Date: 6/7/2017 02:45 PM

Work Order: 1706567
Lab ID: 1706567-15
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 01:48 AM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	50	6/16/2017 09:28 AM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	1	6/15/2017 01:48 AM
Surr: 4-Bromofluorobenzene	92.6		80-110	%REC	1	6/15/2017 01:48 AM
Surr: 4-Bromofluorobenzene	92.0		80-110	%REC	50	6/16/2017 09:28 AM
Surr: Dibromofluoromethane	105		85-115	%REC	1	6/15/2017 01:48 AM
Surr: Dibromofluoromethane	107		85-115	%REC	50	6/16/2017 09:28 AM
Surr: Toluene-d8	95.0		85-110	%REC	1	6/15/2017 01:48 AM
Surr: Toluene-d8	94.8		85-110	%REC	50	6/16/2017 09:28 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	380		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	380		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	63		5.0	mg/L	5	6/20/2017 06:41 AM
Sulfate	5.8		1.0	mg/L	1	6/20/2017 06:20 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	10		2.0	mg/L	4	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW62(36)-G060717
 Collection Date: 6/7/2017 04:00 PM

Work Order: 1706567
 Lab ID: 1706567-16
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	27		0.080	mg/L	1	6/16/2017 02:08 AM
Manganese	2.1		0.050	mg/L	10	6/16/2017 07:53 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
2-Butanone	ND		5.0	µg/L	1	6/16/2017 04:46 AM
2-Hexanone	ND		5.0	µg/L	1	6/16/2017 04:46 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Acetone	ND		10	µg/L	1	6/16/2017 04:46 AM
Benzene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Bromoform	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Bromomethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Carbon disulfide	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Chlorobenzene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Chloroethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Chloroform	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Chloromethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Ethylbenzene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
m,p-Xylene	ND		2.0	µg/L	1	6/16/2017 04:46 AM
Methylene chloride	ND		5.0	µg/L	1	6/16/2017 04:46 AM
o-Xylene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Styrene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Toluene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Trichloroethene	ND		1.0	µg/L	1	6/16/2017 04:46 AM
Vinyl chloride	2.3		1.0	µg/L	1	6/16/2017 04:46 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW62(36)-G060717
Collection Date: 6/7/2017 04:00 PM

Work Order: 1706567
Lab ID: 1706567-16
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/16/2017 04:46 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	109		75-120	%REC	1	6/16/2017 04:46 AM
<i>Surr: 4-Bromofluorobenzene</i>	93.2		80-110	%REC	1	6/16/2017 04:46 AM
<i>Surr: Dibromofluoromethane</i>	108		85-115	%REC	1	6/16/2017 04:46 AM
<i>Surr: Toluene-d8</i>	94.8		85-110	%REC	1	6/16/2017 04:46 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	420		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	420		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	24		5.0	mg/L	5	6/20/2017 11:39 PM
Sulfate	ND		1.0	mg/L	1	6/21/2017 10:06 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	42		5.0	mg/L	10	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW67-G060817
 Collection Date: 6/8/2017 02:30 PM

Work Order: 1706567
 Lab ID: 1706567-17
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	100		0.080	mg/L	1	6/14/2017 12:42 AM
Manganese	2.3		0.050	mg/L	10	6/16/2017 01:06 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
2-Butanone	6.6		5.0	µg/L	1	6/16/2017 05:12 AM
2-Hexanone	ND		5.0	µg/L	1	6/16/2017 05:12 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Acetone	43		10	µg/L	1	6/16/2017 05:12 AM
Benzene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Bromoform	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Bromomethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Carbon disulfide	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Chlorobenzene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Chloroethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Chloroform	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Chloromethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
cis-1,2-Dichloroethene	16		1.0	µg/L	1	6/16/2017 05:12 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Ethylbenzene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
m,p-Xylene	ND		2.0	µg/L	1	6/16/2017 05:12 AM
Methylene chloride	ND		5.0	µg/L	1	6/16/2017 05:12 AM
o-Xylene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Styrene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Toluene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Trichloroethene	ND		1.0	µg/L	1	6/16/2017 05:12 AM
Vinyl chloride	57		1.0	µg/L	1	6/16/2017 05:12 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-MW67-G060817

Lab ID: 1706567-17

Collection Date: 6/8/2017 02:30 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/16/2017 05:12 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	107		75-120	%REC	1	6/16/2017 05:12 AM
<i>Surr: 4-Bromofluorobenzene</i>	92.8		80-110	%REC	1	6/16/2017 05:12 AM
<i>Surr: Dibromofluoromethane</i>	108		85-115	%REC	1	6/16/2017 05:12 AM
<i>Surr: Toluene-d8</i>	95.7		85-110	%REC	1	6/16/2017 05:12 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	550		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	550		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	110		10	mg/L	10	6/20/2017 11:59 PM
Sulfate	2.9		1.0	mg/L	1	6/21/2017 10:26 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	210		20	mg/L	40	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW71-G060817
 Collection Date: 6/8/2017 01:15 PM

Work Order: 1706567
 Lab ID: 1706567-18
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	79		0.080	mg/L	1	6/14/2017 12:47 AM
Manganese	3.4		0.050	mg/L	10	6/16/2017 01:11 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
2-Butanone	59		5.0	µg/L	1	6/17/2017 12:02 PM
2-Hexanone	ND		5.0	µg/L	1	6/17/2017 12:02 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Acetone	150		50	µg/L	5	6/16/2017 05:38 AM
Benzene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Bromoform	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Bromomethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Carbon disulfide	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Chlorobenzene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Chloroethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Chloroform	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Chloromethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
cis-1,2-Dichloroethene	11		1.0	µg/L	1	6/17/2017 12:02 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Ethylbenzene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
m,p-Xylene	ND		2.0	µg/L	1	6/17/2017 12:02 PM
Methylene chloride	ND		5.0	µg/L	1	6/17/2017 12:02 PM
o-Xylene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Styrene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Toluene	40		1.0	µg/L	1	6/17/2017 12:02 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Trichloroethene	ND		1.0	µg/L	1	6/17/2017 12:02 PM
Vinyl chloride	460		5.0	µg/L	5	6/16/2017 05:38 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW71-G060817
Collection Date: 6/8/2017 01:15 PM

Work Order: 1706567
Lab ID: 1706567-18
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/17/2017 12:02 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	6/17/2017 12:02 PM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	5	6/16/2017 05:38 AM
Surr: 4-Bromofluorobenzene	95.6		80-110	%REC	5	6/16/2017 05:38 AM
Surr: 4-Bromofluorobenzene	96.9		80-110	%REC	1	6/17/2017 12:02 PM
Surr: Dibromofluoromethane	106		85-115	%REC	5	6/16/2017 05:38 AM
Surr: Dibromofluoromethane	104		85-115	%REC	1	6/17/2017 12:02 PM
Surr: Toluene-d8	94.6		85-110	%REC	5	6/16/2017 05:38 AM
Surr: Toluene-d8	94.3		85-110	%REC	1	6/17/2017 12:02 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	1,000		10	mg/L	1	6/13/2017 01:15 PM
Alkalinity, Total (as CaCO3)	1,000		10	mg/L	1	6/13/2017 01:15 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	170		20	mg/L	20	6/21/2017 12:19 AM
Sulfate	ND		2.0	mg/L	2	6/21/2017 10:46 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	580		50	mg/L	100	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW16-G060617
Collection Date: 6/6/2017 11:20 AM

Work Order: 1706567
Lab ID: 1706567-19
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	22		0.080	mg/L	1	6/14/2017 12:52 AM
Manganese	0.25		0.0050	mg/L	1	6/14/2017 12:52 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
2-Butanone	110		50	µg/L	10	6/15/2017 03:30 AM
2-Hexanone	ND		5.0	µg/L	1	6/16/2017 06:54 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Acetone	11		10	µg/L	1	6/16/2017 06:54 AM
Benzene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Bromoform	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Bromomethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Carbon disulfide	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Chlorobenzene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Chloroethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Chloroform	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Chloromethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
cis-1,2-Dichloroethene	4.0		1.0	µg/L	1	6/16/2017 06:54 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Ethylbenzene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
m,p-Xylene	ND		2.0	µg/L	1	6/16/2017 06:54 AM
Methylene chloride	ND		5.0	µg/L	1	6/16/2017 06:54 AM
o-Xylene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Styrene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Toluene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Trichloroethene	ND		1.0	µg/L	1	6/16/2017 06:54 AM
Vinyl chloride	44		1.0	µg/L	1	6/16/2017 06:54 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW16-G060617
Collection Date: 6/6/2017 11:20 AM

Work Order: 1706567
Lab ID: 1706567-19
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/16/2017 06:54 AM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	1	6/16/2017 06:54 AM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	10	6/15/2017 03:30 AM
Surr: 4-Bromofluorobenzene	93.0		80-110	%REC	10	6/15/2017 03:30 AM
Surr: 4-Bromofluorobenzene	95.2		80-110	%REC	1	6/16/2017 06:54 AM
Surr: Dibromofluoromethane	107		85-115	%REC	10	6/15/2017 03:30 AM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/16/2017 06:54 AM
Surr: Toluene-d8	94.3		85-110	%REC	10	6/15/2017 03:30 AM
Surr: Toluene-d8	94.6		85-110	%REC	1	6/16/2017 06:54 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	980		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	980		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	22		2.0	mg/L	2	6/21/2017 12:39 AM
Sulfate	ND		1.0	mg/L	1	6/21/2017 11:47 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	140		10	mg/L	20	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW17-G060617
Collection Date: 6/6/2017 10:05 AM

Work Order: 1706567
Lab ID: 1706567-20
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	0.56		0.080	mg/L	1	6/14/2017 01:08 AM
Manganese	0.74		0.0050	mg/L	1	6/14/2017 01:08 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 03:55 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 03:55 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Acetone	ND		10	µg/L	1	6/15/2017 03:55 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
cis-1,2-Dichloroethene	26		1.0	µg/L	1	6/15/2017 03:55 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 03:55 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 03:55 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 03:55 AM
Trichloroethene	78		1.0	µg/L	1	6/15/2017 03:55 AM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 03:55 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW17-G060617
Collection Date: 6/6/2017 10:05 AM

Work Order: 1706567
Lab ID: 1706567-20
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 03:55 AM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	1	6/15/2017 03:55 AM
Surr: 4-Bromofluorobenzene	92.2		80-110	%REC	1	6/15/2017 03:55 AM
Surr: Dibromofluoromethane	107		85-115	%REC	1	6/15/2017 03:55 AM
Surr: Toluene-d8	94.4		85-110	%REC	1	6/15/2017 03:55 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	360		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	360		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	21		2.0	mg/L	2	6/21/2017 12:59 AM
Sulfate	17		2.0	mg/L	2	6/21/2017 12:59 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	0.85		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	2.8		0.50	mg/L	1	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW3(55)-G060717
Collection Date: 6/7/2017 09:05 AM

Work Order: 1706567
Lab ID: 1706567-21
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	150		0.080	mg/L	1	6/14/2017 01:13 AM
Manganese	0.32		0.0050	mg/L	1	6/14/2017 01:13 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
2-Butanone	150		25	µg/L	5	6/16/2017 10:19 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 04:21 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Acetone	11		10	µg/L	1	6/15/2017 04:21 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
cis-1,2-Dichloroethene	11		1.0	µg/L	1	6/15/2017 04:21 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 04:21 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 04:21 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
trans-1,2-Dichloroethene	4.8		1.0	µg/L	1	6/15/2017 04:21 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 04:21 AM
Vinyl chloride	4.8		1.0	µg/L	1	6/15/2017 04:21 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW3(55)-G060717
Collection Date: 6/7/2017 09:05 AM

Work Order: 1706567
Lab ID: 1706567-21
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 04:21 AM
Surr: 1,2-Dichloroethane-d4	108		75-120	%REC	5	6/16/2017 10:19 AM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	1	6/15/2017 04:21 AM
Surr: 4-Bromofluorobenzene	95.0		80-110	%REC	1	6/15/2017 04:21 AM
Surr: 4-Bromofluorobenzene	92.1		80-110	%REC	5	6/16/2017 10:19 AM
Surr: Dibromofluoromethane	106		85-115	%REC	1	6/15/2017 04:21 AM
Surr: Dibromofluoromethane	108		85-115	%REC	5	6/16/2017 10:19 AM
Surr: Toluene-d8	94.4		85-110	%REC	1	6/15/2017 04:21 AM
Surr: Toluene-d8	94.0		85-110	%REC	5	6/16/2017 10:19 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	610		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	610		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	16		1.0	mg/L	1	6/21/2017 01:20 AM
Sulfate	ND		1.0	mg/L	1	6/21/2017 01:20 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	580		250	mg/L	500	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-OW3(35)-G060717
 Collection Date: 6/7/2017 10:10 AM

Work Order: 1706567
 Lab ID: 1706567-22
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	13		0.080	mg/L	1	6/14/2017 01:18 AM
Manganese	0.56		0.0050	mg/L	1	6/14/2017 01:18 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
2-Butanone	ND		5.0	µg/L	1	6/14/2017 08:31 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 08:31 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Acetone	ND		10	µg/L	1	6/14/2017 08:31 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 08:31 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 08:31 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 08:31 PM
Vinyl chloride	ND		1.0	µg/L	1	6/14/2017 08:31 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW3(35)-G060717
Collection Date: 6/7/2017 10:10 AM

Work Order: 1706567
Lab ID: 1706567-22
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 08:31 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	107		75-120	%REC	1	6/14/2017 08:31 PM
<i>Surr: 4-Bromofluorobenzene</i>	93.4		80-110	%REC	1	6/14/2017 08:31 PM
<i>Surr: Dibromofluoromethane</i>	107		85-115	%REC	1	6/14/2017 08:31 PM
<i>Surr: Toluene-d8</i>	91.4		85-110	%REC	1	6/14/2017 08:31 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	310		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	310		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	19		1.0	mg/L	1	6/21/2017 02:00 AM
Sulfate	23		10	mg/L	10	6/21/2017 02:20 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	4.1		0.50	mg/L	1	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-OW1(39)-G060717
 Collection Date: 6/7/2017 11:25 AM

Work Order: 1706567
 Lab ID: 1706567-23
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	9.7		0.080	mg/L	1	6/14/2017 01:23 AM
Manganese	0.42		0.050	mg/L	10	6/16/2017 01:16 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 04:47 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 04:47 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Acetone	ND		10	µg/L	1	6/15/2017 04:47 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 04:47 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 04:47 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 04:47 AM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 04:47 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW1(39)-G060717
Collection Date: 6/7/2017 11:25 AM

Work Order: 1706567
Lab ID: 1706567-23
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 04:47 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	110		75-120	%REC	1	6/15/2017 04:47 AM
<i>Surr: 4-Bromofluorobenzene</i>	94.6		80-110	%REC	1	6/15/2017 04:47 AM
<i>Surr: Dibromofluoromethane</i>	108		85-115	%REC	1	6/15/2017 04:47 AM
<i>Surr: Toluene-d8</i>	96.2		85-110	%REC	1	6/15/2017 04:47 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	270		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	270		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	19		5.0	mg/L	5	6/21/2017 03:41 AM
Sulfate	ND		1.0	mg/L	1	6/21/2017 02:41 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	6.2		2.0	mg/L	4	6/15/2017 11:32 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-OW1(28)-G060717
 Collection Date: 6/7/2017 12:35 PM

Work Order: 1706567
 Lab ID: 1706567-24
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	14		0.080	mg/L	1	6/14/2017 01:28 AM
Manganese	2.2		0.050	mg/L	10	6/18/2017 12:24 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 05:12 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 05:12 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Acetone	ND		10	µg/L	1	6/15/2017 05:12 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 05:12 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 05:12 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 05:12 AM
Vinyl chloride	2.3		1.0	µg/L	1	6/15/2017 05:12 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW1(28)-G060717
Collection Date: 6/7/2017 12:35 PM

Work Order: 1706567
Lab ID: 1706567-24
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 05:12 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	104		75-120	%REC	1	6/15/2017 05:12 AM
<i>Surr: 4-Bromofluorobenzene</i>	94.0		80-110	%REC	1	6/15/2017 05:12 AM
<i>Surr: Dibromofluoromethane</i>	106		85-115	%REC	1	6/15/2017 05:12 AM
<i>Surr: Toluene-d8</i>	94.7		85-110	%REC	1	6/15/2017 05:12 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	350		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	350		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	56		5.0	mg/L	5	6/21/2017 04:22 AM
Sulfate	8.2		1.0	mg/L	1	6/21/2017 04:01 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	6.4		0.50	mg/L	1	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW82-G060717
 Collection Date: 6/7/2017 01:55 PM

Work Order: 1706567
 Lab ID: 1706567-25
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3005A 6/13/17 13:06	Analyst: LR
Iron	26		0.080	mg/L	1	6/14/2017 01:49 AM
Manganese	0.31		0.0050	mg/L	1	6/14/2017 01:49 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 05:38 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 05:38 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Acetone	ND		10	µg/L	1	6/15/2017 05:38 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 05:38 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 05:38 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 05:38 AM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 05:38 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW82-G060717
Collection Date: 6/7/2017 01:55 PM

Work Order: 1706567
Lab ID: 1706567-25
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 05:38 AM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	1	6/15/2017 05:38 AM
Surr: 4-Bromofluorobenzene	92.2		80-110	%REC	1	6/15/2017 05:38 AM
Surr: Dibromofluoromethane	107		85-115	%REC	1	6/15/2017 05:38 AM
Surr: Toluene-d8	94.2		85-110	%REC	1	6/15/2017 05:38 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	310		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	310		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	18		1.0	mg/L	1	6/21/2017 04:42 AM
Sulfate	ND		1.0	mg/L	1	6/21/2017 04:42 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	4.9		0.50	mg/L	1	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-EB001-G060717

Lab ID: 1706567-26

Collection Date: 6/7/2017 02:15 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 06:03 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 06:03 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Acetone	ND		10	µg/L	1	6/15/2017 06:03 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 06:03 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 06:03 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 06:03 AM
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 06:03 AM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	1	6/15/2017 06:03 AM
Surr: 4-Bromofluorobenzene	92.2		80-110	%REC	1	6/15/2017 06:03 AM
Surr: Dibromofluoromethane	107		85-115	%REC	1	6/15/2017 06:03 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-EB001-G060717

Lab ID: 1706567-26

Collection Date: 6/7/2017 02:15 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	92.4		85-110	%REC	1	6/15/2017 06:03 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW13-G060717
Collection Date: 6/7/2017 03:00 PM

Work Order: 1706567
Lab ID: 1706567-27
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	27		0.080	mg/L	1	6/14/2017 01:54 AM
Manganese	0.86		0.0050	mg/L	1	6/14/2017 01:54 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 06:29 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 06:29 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Acetone	ND		10	µg/L	1	6/15/2017 06:29 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
cis-1,2-Dichloroethene	370		10	µg/L	10	6/16/2017 04:21 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 06:29 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 06:29 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
trans-1,2-Dichloroethene	2.8		1.0	µg/L	1	6/15/2017 06:29 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 06:29 AM
Vinyl chloride	150		10	µg/L	10	6/16/2017 04:21 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW13-G060717
Collection Date: 6/7/2017 03:00 PM

Work Order: 1706567
Lab ID: 1706567-27
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 06:29 AM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	10	6/16/2017 04:21 AM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	1	6/15/2017 06:29 AM
Surr: 4-Bromofluorobenzene	90.4		80-110	%REC	1	6/15/2017 06:29 AM
Surr: 4-Bromofluorobenzene	92.7		80-110	%REC	10	6/16/2017 04:21 AM
Surr: Dibromofluoromethane	109		85-115	%REC	1	6/15/2017 06:29 AM
Surr: Dibromofluoromethane	108		85-115	%REC	10	6/16/2017 04:21 AM
Surr: Toluene-d8	93.6		85-110	%REC	1	6/15/2017 06:29 AM
Surr: Toluene-d8	95.2		85-110	%REC	10	6/16/2017 04:21 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	450		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	450		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	21		5.0	mg/L	5	6/21/2017 05:43 AM
Sulfate	56		5.0	mg/L	5	6/21/2017 05:43 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	6.7		2.0	mg/L	4	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW59(29)-G060717
 Collection Date: 6/7/2017 01:45 PM

Work Order: 1706567
 Lab ID: 1706567-28
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	15		0.080	mg/L	1	6/14/2017 01:59 AM
Manganese	1.1		0.0050	mg/L	1	6/14/2017 01:59 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 06:29 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
2-Butanone	13		5.0	µg/L	1	6/16/2017 06:29 AM
2-Hexanone	ND		5.0	µg/L	1	6/16/2017 06:29 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Acetone	ND		10	µg/L	1	6/16/2017 06:29 AM
Benzene	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Bromoform	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Bromomethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Carbon disulfide	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Chlorobenzene	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Chloroethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Chloroform	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Chloromethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
cis-1,2-Dichloroethene	2.6		1.0	µg/L	1	6/16/2017 06:29 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Ethylbenzene	3.5		1.0	µg/L	1	6/16/2017 06:29 AM
m,p-Xylene	4.8		2.0	µg/L	1	6/16/2017 06:29 AM
Methylene chloride	ND		5.0	µg/L	1	6/16/2017 06:29 AM
o-Xylene	3.1		1.0	µg/L	1	6/16/2017 06:29 AM
Styrene	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Toluene	13		1.0	µg/L	1	6/16/2017 06:29 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 06:29 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Trichloroethene	ND		1.0	µg/L	1	6/16/2017 06:29 AM
Vinyl chloride	5.2		1.0	µg/L	1	6/16/2017 06:29 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-MW59(29)-G060717

Lab ID: 1706567-28

Collection Date: 6/7/2017 01:45 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	8.0		3.0	µg/L	1	6/16/2017 06:29 AM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	6/16/2017 06:29 AM
Surr: 4-Bromofluorobenzene	95.8		80-110	%REC	1	6/16/2017 06:29 AM
Surr: Dibromofluoromethane	109		85-115	%REC	1	6/16/2017 06:29 AM
Surr: Toluene-d8	94.8		85-110	%REC	1	6/16/2017 06:29 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	530		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	530		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	110		20	mg/L	20	6/21/2017 06:23 AM
Sulfate	1.3		1.0	mg/L	1	6/21/2017 06:03 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	67		10	mg/L	20	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW59(29)-G060717R
 Collection Date: 6/7/2017 01:45 PM

Work Order: 1706567
 Lab ID: 1706567-29
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	16		0.080	mg/L	1	6/14/2017 02:04 AM
Manganese	1.1		0.0050	mg/L	1	6/14/2017 02:04 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 07:20 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
2-Butanone	11		5.0	µg/L	1	6/15/2017 07:20 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 07:20 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Acetone	ND		10	µg/L	1	6/15/2017 07:20 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Chloroethane	5.4		1.0	µg/L	1	6/15/2017 07:20 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
cis-1,2-Dichloroethene	3.2		1.0	µg/L	1	6/15/2017 07:20 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Ethylbenzene	3.4		1.0	µg/L	1	6/15/2017 07:20 AM
m,p-Xylene	4.5		2.0	µg/L	1	6/15/2017 07:20 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 07:20 AM
o-Xylene	3.0		1.0	µg/L	1	6/15/2017 07:20 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Toluene	13		1.0	µg/L	1	6/15/2017 07:20 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 07:20 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 07:20 AM
Vinyl chloride	5.6		1.0	µg/L	1	6/15/2017 07:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW59(29)-G060717R
Collection Date: 6/7/2017 01:45 PM

Work Order: 1706567
Lab ID: 1706567-29
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	7.5		3.0	µg/L	1	6/15/2017 07:20 AM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	1	6/15/2017 07:20 AM
Surr: 4-Bromofluorobenzene	97.0		80-110	%REC	1	6/15/2017 07:20 AM
Surr: Dibromofluoromethane	105		85-115	%REC	1	6/15/2017 07:20 AM
Surr: Toluene-d8	94.8		85-110	%REC	1	6/15/2017 07:20 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	520		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	520		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	99		20	mg/L	20	6/21/2017 07:44 AM
Sulfate	ND		1.0	mg/L	1	6/21/2017 06:43 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	67		10	mg/L	20	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-OW4(35)-G060717
 Collection Date: 6/7/2017 08:35 AM

Work Order: 1706567
 Lab ID: 1706567-30
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	97		0.080	mg/L	1	6/14/2017 02:09 AM
Manganese	1.8		0.050	mg/L	10	6/16/2017 01:21 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
2-Butanone	230		100	µg/L	20	6/15/2017 07:46 AM
2-Hexanone	ND		5.0	µg/L	1	6/16/2017 06:03 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Acetone	16		10	µg/L	1	6/16/2017 06:03 AM
Benzene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Bromoform	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Bromomethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Carbon disulfide	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Chlorobenzene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Chloroethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Chloroform	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Chloromethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
cis-1,2-Dichloroethene	1.9		1.0	µg/L	1	6/16/2017 06:03 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Ethylbenzene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
m,p-Xylene	ND		2.0	µg/L	1	6/16/2017 06:03 AM
Methylene chloride	ND		5.0	µg/L	1	6/16/2017 06:03 AM
o-Xylene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Styrene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Toluene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
trans-1,2-Dichloroethene	1.3		1.0	µg/L	1	6/16/2017 06:03 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Trichloroethene	ND		1.0	µg/L	1	6/16/2017 06:03 AM
Vinyl chloride	5.2		1.0	µg/L	1	6/16/2017 06:03 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW4(35)-G060717
Collection Date: 6/7/2017 08:35 AM

Work Order: 1706567
Lab ID: 1706567-30
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/16/2017 06:03 AM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	1	6/16/2017 06:03 AM
Surr: 1,2-Dichloroethane-d4	108		75-120	%REC	20	6/15/2017 07:46 AM
Surr: 4-Bromofluorobenzene	91.4		80-110	%REC	20	6/15/2017 07:46 AM
Surr: 4-Bromofluorobenzene	97.9		80-110	%REC	1	6/16/2017 06:03 AM
Surr: Dibromofluoromethane	107		85-115	%REC	20	6/15/2017 07:46 AM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/16/2017 06:03 AM
Surr: Toluene-d8	93.0		85-110	%REC	20	6/15/2017 07:46 AM
Surr: Toluene-d8	93.7		85-110	%REC	1	6/16/2017 06:03 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	1,200		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	1,200		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	14		5.0	mg/L	5	6/21/2017 08:25 AM
Sulfate	ND		1.0	mg/L	1	6/21/2017 08:04 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	530		250	mg/L	500	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW81(27)-G060717
Collection Date: 6/7/2017 10:35 AM

Work Order: 1706567
Lab ID: 1706567-31
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	93		0.080	mg/L	1	6/14/2017 02:14 AM
Manganese	0.86		0.0050	mg/L	1	6/14/2017 02:14 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		100	µg/L	100	6/16/2017 08:11 AM
1,1,2,2-Tetrachloroethane	ND		100	µg/L	100	6/16/2017 08:11 AM
1,1,2-Trichloroethane	ND		100	µg/L	100	6/16/2017 08:11 AM
1,1-Dichloroethane	ND		100	µg/L	100	6/16/2017 08:11 AM
1,1-Dichloroethene	ND		100	µg/L	100	6/16/2017 08:11 AM
1,2-Dichloroethane	ND		100	µg/L	100	6/16/2017 08:11 AM
1,2-Dichloropropane	ND		100	µg/L	100	6/16/2017 08:11 AM
2-Butanone	ND		500	µg/L	100	6/16/2017 08:11 AM
2-Hexanone	ND		500	µg/L	100	6/16/2017 08:11 AM
4-Methyl-2-pentanone	ND		100	µg/L	100	6/16/2017 08:11 AM
Acetone	ND		1,000	µg/L	100	6/16/2017 08:11 AM
Benzene	ND		100	µg/L	100	6/16/2017 08:11 AM
Bromodichloromethane	ND		100	µg/L	100	6/16/2017 08:11 AM
Bromoform	ND		100	µg/L	100	6/16/2017 08:11 AM
Bromomethane	ND		100	µg/L	100	6/16/2017 08:11 AM
Carbon disulfide	ND		100	µg/L	100	6/16/2017 08:11 AM
Carbon tetrachloride	ND		100	µg/L	100	6/16/2017 08:11 AM
Chlorobenzene	ND		100	µg/L	100	6/16/2017 08:11 AM
Chloroethane	ND		100	µg/L	100	6/16/2017 08:11 AM
Chloroform	ND		100	µg/L	100	6/16/2017 08:11 AM
Chloromethane	ND		100	µg/L	100	6/16/2017 08:11 AM
cis-1,2-Dichloroethene	7,000		100	µg/L	100	6/16/2017 08:11 AM
cis-1,3-Dichloropropene	ND		100	µg/L	100	6/16/2017 08:11 AM
Dibromochloromethane	ND		100	µg/L	100	6/16/2017 08:11 AM
Ethylbenzene	ND		100	µg/L	100	6/16/2017 08:11 AM
m,p-Xylene	ND		200	µg/L	100	6/16/2017 08:11 AM
Methylene chloride	ND		500	µg/L	100	6/16/2017 08:11 AM
o-Xylene	ND		100	µg/L	100	6/16/2017 08:11 AM
Styrene	ND		100	µg/L	100	6/16/2017 08:11 AM
Tetrachloroethene	ND		100	µg/L	100	6/16/2017 08:11 AM
Toluene	ND		100	µg/L	100	6/16/2017 08:11 AM
trans-1,2-Dichloroethene	ND		100	µg/L	100	6/16/2017 08:11 AM
trans-1,3-Dichloropropene	ND		100	µg/L	100	6/16/2017 08:11 AM
Trichloroethene	ND		100	µg/L	100	6/16/2017 08:11 AM
Vinyl chloride	24,000		250	µg/L	250	6/15/2017 08:11 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW81(27)-G060717
Collection Date: 6/7/2017 10:35 AM

Work Order: 1706567
Lab ID: 1706567-31
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		300	µg/L	100	6/16/2017 08:11 AM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	100	6/16/2017 08:11 AM
Surr: 1,2-Dichloroethane-d4	110		75-120	%REC	250	6/15/2017 08:11 AM
Surr: 4-Bromofluorobenzene	91.7		80-110	%REC	250	6/15/2017 08:11 AM
Surr: 4-Bromofluorobenzene	94.2		80-110	%REC	100	6/16/2017 08:11 AM
Surr: Dibromofluoromethane	109		85-115	%REC	250	6/15/2017 08:11 AM
Surr: Dibromofluoromethane	107		85-115	%REC	100	6/16/2017 08:11 AM
Surr: Toluene-d8	93.0		85-110	%REC	250	6/15/2017 08:11 AM
Surr: Toluene-d8	93.0		85-110	%REC	100	6/16/2017 08:11 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	200		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	200		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	170		10	mg/L	10	6/21/2017 09:05 AM
Sulfate	ND		1.0	mg/L	1	6/21/2017 08:45 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	170		50	mg/L	100	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-PM2-G060717
 Collection Date: 6/7/2017 03:15 PM

Work Order: 1706567
 Lab ID: 1706567-32
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	12		0.080	mg/L	1	6/14/2017 02:20 AM
Manganese	1.4		0.050	mg/L	10	6/16/2017 01:27 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 08:37 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 08:37 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 08:37 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Acetone	ND		10	µg/L	1	6/15/2017 08:37 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Bromoform	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Chloroethane	2.6		1.0	µg/L	1	6/15/2017 08:37 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
cis-1,2-Dichloroethene	12		1.0	µg/L	1	6/15/2017 08:37 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Ethylbenzene	7.6		1.0	µg/L	1	6/15/2017 08:37 AM
m,p-Xylene	7.5		2.0	µg/L	1	6/15/2017 08:37 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 08:37 AM
o-Xylene	2.0		1.0	µg/L	1	6/15/2017 08:37 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Toluene	3.8		1.0	µg/L	1	6/15/2017 08:37 AM
trans-1,2-Dichloroethene	1.2		1.0	µg/L	1	6/15/2017 08:37 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 08:37 AM
Vinyl chloride	360		10	µg/L	10	6/16/2017 07:45 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-PM2-G060717
Collection Date: 6/7/2017 03:15 PM

Work Order: 1706567
Lab ID: 1706567-32
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	9.5		3.0	µg/L	1	6/15/2017 08:37 AM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	10	6/16/2017 07:45 AM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	1	6/15/2017 08:37 AM
Surr: 4-Bromofluorobenzene	94.8		80-110	%REC	1	6/15/2017 08:37 AM
Surr: 4-Bromofluorobenzene	92.8		80-110	%REC	10	6/16/2017 07:45 AM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/15/2017 08:37 AM
Surr: Dibromofluoromethane	108		85-115	%REC	10	6/16/2017 07:45 AM
Surr: Toluene-d8	93.6		85-110	%REC	1	6/15/2017 08:37 AM
Surr: Toluene-d8	93.8		85-110	%REC	10	6/16/2017 07:45 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	450		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	450		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	33		5.0	mg/L	5	6/21/2017 01:48 PM
Sulfate	2.7		1.0	mg/L	1	6/21/2017 12:07 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	19		10	mg/L	20	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-PM3-G060717
Collection Date: 6/7/2017 04:40 PM

Work Order: 1706567
Lab ID: 1706567-33
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3005A 6/13/17 13:06	Analyst: LR
Iron	53		0.080	mg/L	1	6/14/2017 02:25 AM
Manganese	2.1		0.050	mg/L	10	6/16/2017 01:47 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		500	µg/L	500	6/15/2017 09:03 AM
1,1,2,2-Tetrachloroethane	ND		500	µg/L	500	6/15/2017 09:03 AM
1,1,2-Trichloroethane	ND		500	µg/L	500	6/15/2017 09:03 AM
1,1-Dichloroethane	ND		500	µg/L	500	6/15/2017 09:03 AM
1,1-Dichloroethene	ND		500	µg/L	500	6/15/2017 09:03 AM
1,2-Dichloroethane	ND		500	µg/L	500	6/15/2017 09:03 AM
1,2-Dichloropropane	ND		500	µg/L	500	6/15/2017 09:03 AM
2-Butanone	ND		2,500	µg/L	500	6/15/2017 09:03 AM
2-Hexanone	ND		2,500	µg/L	500	6/15/2017 09:03 AM
4-Methyl-2-pentanone	ND		500	µg/L	500	6/15/2017 09:03 AM
Acetone	ND		5,000	µg/L	500	6/15/2017 09:03 AM
Benzene	ND		500	µg/L	500	6/15/2017 09:03 AM
Bromodichloromethane	ND		500	µg/L	500	6/15/2017 09:03 AM
Bromoform	ND		500	µg/L	500	6/15/2017 09:03 AM
Bromomethane	ND		500	µg/L	500	6/15/2017 09:03 AM
Carbon disulfide	ND		500	µg/L	500	6/15/2017 09:03 AM
Carbon tetrachloride	ND		500	µg/L	500	6/15/2017 09:03 AM
Chlorobenzene	ND		500	µg/L	500	6/15/2017 09:03 AM
Chloroethane	ND		500	µg/L	500	6/15/2017 09:03 AM
Chloroform	ND		500	µg/L	500	6/15/2017 09:03 AM
Chloromethane	ND		500	µg/L	500	6/15/2017 09:03 AM
cis-1,2-Dichloroethene	6,200		500	µg/L	500	6/15/2017 09:03 AM
cis-1,3-Dichloropropene	ND		500	µg/L	500	6/15/2017 09:03 AM
Dibromochloromethane	ND		500	µg/L	500	6/15/2017 09:03 AM
Ethylbenzene	ND		500	µg/L	500	6/15/2017 09:03 AM
m,p-Xylene	ND		1,000	µg/L	500	6/15/2017 09:03 AM
Methylene chloride	ND		2,500	µg/L	500	6/15/2017 09:03 AM
o-Xylene	ND		500	µg/L	500	6/15/2017 09:03 AM
Styrene	ND		500	µg/L	500	6/15/2017 09:03 AM
Tetrachloroethene	ND		500	µg/L	500	6/15/2017 09:03 AM
Toluene	ND		500	µg/L	500	6/15/2017 09:03 AM
trans-1,2-Dichloroethene	ND		500	µg/L	500	6/15/2017 09:03 AM
trans-1,3-Dichloropropene	ND		500	µg/L	500	6/15/2017 09:03 AM
Trichloroethene	ND		500	µg/L	500	6/15/2017 09:03 AM
Vinyl chloride	61,000		2,000	µg/L	2000	6/16/2017 07:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-PM3-G060717
Collection Date: 6/7/2017 04:40 PM

Work Order: 1706567
Lab ID: 1706567-33
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		1,500	µg/L	500	6/15/2017 09:03 AM
Surr: 1,2-Dichloroethane-d4	108		75-120	%REC	2000	6/16/2017 07:20 AM
Surr: 1,2-Dichloroethane-d4	108		75-120	%REC	500	6/15/2017 09:03 AM
Surr: 4-Bromofluorobenzene	92.8		80-110	%REC	500	6/15/2017 09:03 AM
Surr: 4-Bromofluorobenzene	91.6		80-110	%REC	2000	6/16/2017 07:20 AM
Surr: Dibromofluoromethane	108		85-115	%REC	500	6/15/2017 09:03 AM
Surr: Dibromofluoromethane	107		85-115	%REC	2000	6/16/2017 07:20 AM
Surr: Toluene-d8	93.2		85-110	%REC	500	6/15/2017 09:03 AM
Surr: Toluene-d8	93.8		85-110	%REC	2000	6/16/2017 07:20 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	340		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	340		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	110		10	mg/L	10	6/21/2017 02:08 PM
Sulfate	ND		1.0	mg/L	1	6/21/2017 12:27 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	810		500	mg/L	1000	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-EB003-G060617
Collection Date: 6/7/2017 05:05 PM

Work Order: 1706567
Lab ID: 1706567-34
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 09:28 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 02:41 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 09:28 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 02:41 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 09:28 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Acetone	ND		10	µg/L	1	6/15/2017 02:41 PM
Acetone	ND		10	µg/L	1	6/15/2017 09:28 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 02:41 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-EB003-G060617
Collection Date: 6/7/2017 05:05 PM

Work Order: 1706567
Lab ID: 1706567-34
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 02:41 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 09:28 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 09:28 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 02:41 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 09:28 AM
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 02:41 PM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	6/15/2017 09:28 AM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	6/15/2017 02:41 PM
Surr: 4-Bromofluorobenzene	92.8		80-110	%REC	1	6/15/2017 02:41 PM
Surr: 4-Bromofluorobenzene	89.4		80-110	%REC	1	6/15/2017 09:28 AM
Surr: Dibromofluoromethane	110		85-115	%REC	1	6/15/2017 09:28 AM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/15/2017 02:41 PM
Surr: Toluene-d8	94.2		85-110	%REC	1	6/15/2017 02:41 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-EB003-G060617

Lab ID: 1706567-34

Collection Date: 6/7/2017 05:05 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	94.2		85-110	%REC	1	6/15/2017 09:28 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-ZVI2(32.5)-G060617
 Collection Date: 6/6/2017 09:30 AM

Work Order: 1706567
 Lab ID: 1706567-35
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	19		0.080	mg/L	1	6/14/2017 02:30 AM
Manganese	0.16		0.0050	mg/L	1	6/14/2017 02:30 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
2-Butanone	190		25	µg/L	5	6/16/2017 06:55 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 03:33 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Acetone	16		10	µg/L	1	6/15/2017 03:33 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 03:33 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 03:33 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 03:33 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 03:33 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-ZVI2(32.5)-G060617
Collection Date: 6/6/2017 09:30 AM

Work Order: 1706567
Lab ID: 1706567-35
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 03:33 PM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	5	6/16/2017 06:55 PM
Surr: 1,2-Dichloroethane-d4	108		75-120	%REC	1	6/15/2017 03:33 PM
Surr: 4-Bromofluorobenzene	91.9		80-110	%REC	1	6/15/2017 03:33 PM
Surr: 4-Bromofluorobenzene	92.2		80-110	%REC	5	6/16/2017 06:55 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/15/2017 03:33 PM
Surr: Dibromofluoromethane	106		85-115	%REC	5	6/16/2017 06:55 PM
Surr: Toluene-d8	92.5		85-110	%REC	1	6/15/2017 03:33 PM
Surr: Toluene-d8	94.2		85-110	%REC	5	6/16/2017 06:55 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	650		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	650		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	15		1.0	mg/L	1	6/21/2017 12:48 PM
Sulfate	1.5		1.0	mg/L	1	6/21/2017 12:48 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	53		10	mg/L	20	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-ZVI2(17.5)-G060617
 Collection Date: 6/6/2017 10:35 AM

Work Order: 1706567
 Lab ID: 1706567-36
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	16		0.080	mg/L	1	6/14/2017 02:35 AM
Manganese	0.34		0.0050	mg/L	1	6/14/2017 02:35 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 03:58 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 03:58 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Acetone	ND		10	µg/L	1	6/15/2017 03:58 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 03:58 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 03:58 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 03:58 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 03:58 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-ZVI2(17.5)-G060617
Collection Date: 6/6/2017 10:35 AM

Work Order: 1706567
Lab ID: 1706567-36
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 03:58 PM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	6/15/2017 03:58 PM
Surr: 4-Bromofluorobenzene	92.2		80-110	%REC	1	6/15/2017 03:58 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/15/2017 03:58 PM
Surr: Toluene-d8	94.9		85-110	%REC	1	6/15/2017 03:58 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	410		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	410		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	19		2.0	mg/L	2	6/21/2017 02:29 PM
Sulfate	ND		1.0	mg/L	1	6/21/2017 01:08 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	3.9		0.50	mg/L	1	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-EB001-G060617
 Collection Date: 6/6/2017 11:00 AM

Work Order: 1706567
 Lab ID: 1706567-37
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 02:16 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 02:16 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Acetone	ND		10	µg/L	1	6/15/2017 02:16 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 02:16 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 02:16 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 02:16 PM
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 02:16 PM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	1	6/15/2017 02:16 PM
Surr: 4-Bromofluorobenzene	93.5		80-110	%REC	1	6/15/2017 02:16 PM
Surr: Dibromofluoromethane	105		85-115	%REC	1	6/15/2017 02:16 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-EB001-G060617

Lab ID: 1706567-37

Collection Date: 6/6/2017 11:00 AM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.0		85-110	%REC	1	6/15/2017 02:16 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW5(44)-G060617
Collection Date: 6/6/2017 11:55 AM

Work Order: 1706567
Lab ID: 1706567-38
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	99		0.080	mg/L	1	6/14/2017 02:56 AM
Manganese	2.0		0.050	mg/L	10	6/16/2017 01:52 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
2-Butanone	140		50	µg/L	10	6/15/2017 04:24 PM
2-Hexanone	ND		5.0	µg/L	1	6/17/2017 12:53 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Acetone	10		10	µg/L	1	6/17/2017 12:53 PM
Benzene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Bromoform	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Bromomethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Carbon disulfide	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Chlorobenzene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Chloroethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Chloroform	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Chloromethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Ethylbenzene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
m,p-Xylene	ND		2.0	µg/L	1	6/17/2017 12:53 PM
Methylene chloride	ND		5.0	µg/L	1	6/17/2017 12:53 PM
o-Xylene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Styrene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Toluene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Trichloroethene	ND		1.0	µg/L	1	6/17/2017 12:53 PM
Vinyl chloride	ND		1.0	µg/L	1	6/17/2017 12:53 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW5(44)-G060617
Collection Date: 6/6/2017 11:55 AM

Work Order: 1706567
Lab ID: 1706567-38
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/17/2017 12:53 PM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	1	6/17/2017 12:53 PM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	10	6/15/2017 04:24 PM
Surr: 4-Bromofluorobenzene	93.6		80-110	%REC	10	6/15/2017 04:24 PM
Surr: 4-Bromofluorobenzene	95.6		80-110	%REC	1	6/17/2017 12:53 PM
Surr: Dibromofluoromethane	109		85-115	%REC	10	6/15/2017 04:24 PM
Surr: Dibromofluoromethane	105		85-115	%REC	1	6/17/2017 12:53 PM
Surr: Toluene-d8	95.6		85-110	%REC	10	6/15/2017 04:24 PM
Surr: Toluene-d8	93.2		85-110	%REC	1	6/17/2017 12:53 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	1,100		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	1,100		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	16		1.0	mg/L	1	6/21/2017 01:28 PM
Sulfate	ND		1.0	mg/L	1	6/21/2017 01:28 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	280		50	mg/L	100	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW5(35)-G060617
Collection Date: 6/6/2017 12:45 PM

Work Order: 1706567
Lab ID: 1706567-39
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/13/17 13:06		Analyst: LR
Iron	27		0.080	mg/L	1	6/14/2017 03:01 AM
Manganese	0.79		0.0050	mg/L	1	6/14/2017 03:01 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 04:50 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 04:50 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Acetone	ND		10	µg/L	1	6/15/2017 04:50 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 04:50 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 04:50 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 04:50 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 04:50 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW5(35)-G060617
Collection Date: 6/6/2017 12:45 PM

Work Order: 1706567
Lab ID: 1706567-39
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 04:50 PM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	1	6/15/2017 04:50 PM
Surr: 4-Bromofluorobenzene	93.4		80-110	%REC	1	6/15/2017 04:50 PM
Surr: Dibromofluoromethane	109		85-115	%REC	1	6/15/2017 04:50 PM
Surr: Toluene-d8	94.9		85-110	%REC	1	6/15/2017 04:50 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	390		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	390		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	8.0		1.0	mg/L	1	6/22/2017 09:39 AM
Sulfate	1.5		1.0	mg/L	1	6/22/2017 09:39 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	29		20	mg/L	40	6/16/2017 03:35 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-OW5(16)-G060617
 Collection Date: 6/6/2017 01:55 PM

Work Order: 1706567
 Lab ID: 1706567-40
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	5.2		0.080	mg/L	1	6/16/2017 02:13 AM
Manganese	0.30		0.0050	mg/L	1	6/16/2017 02:13 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 05:15 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 05:15 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Acetone	ND		10	µg/L	1	6/15/2017 05:15 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 05:15 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 05:15 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 05:15 PM
Vinyl chloride	1.6		1.0	µg/L	1	6/15/2017 05:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW5(16)-G060617
Collection Date: 6/6/2017 01:55 PM

Work Order: 1706567
Lab ID: 1706567-40
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 05:15 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	106		75-120	%REC	1	6/15/2017 05:15 PM
<i>Surr: 4-Bromofluorobenzene</i>	93.2		80-110	%REC	1	6/15/2017 05:15 PM
<i>Surr: Dibromofluoromethane</i>	107		85-115	%REC	1	6/15/2017 05:15 PM
<i>Surr: Toluene-d8</i>	94.6		85-110	%REC	1	6/15/2017 05:15 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	330		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	330		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	24		2.0	mg/L	2	6/22/2017 07:33 PM
Sulfate	6.2		1.0	mg/L	1	6/22/2017 09:59 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	4.5		0.50	mg/L	1	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-OW2(53)-G060617
 Collection Date: 6/6/2017 03:15 PM

Work Order: 1706567
 Lab ID: 1706567-41
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3005A 6/14/17 12:35	Analyst: LR
Iron	20		0.080	mg/L	1	6/16/2017 02:28 AM
Manganese	0.16		0.0050	mg/L	1	6/16/2017 02:28 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 05:41 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 05:41 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Acetone	ND		10	µg/L	1	6/15/2017 05:41 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 05:41 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 05:41 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 05:41 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 05:41 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW2(53)-G060617
Collection Date: 6/6/2017 03:15 PM

Work Order: 1706567
Lab ID: 1706567-41
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 05:41 PM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	1	6/15/2017 05:41 PM
Surr: 4-Bromofluorobenzene	94.0		80-110	%REC	1	6/15/2017 05:41 PM
Surr: Dibromofluoromethane	109		85-115	%REC	1	6/15/2017 05:41 PM
Surr: Toluene-d8	94.2		85-110	%REC	1	6/15/2017 05:41 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	480		10	mg/L	1	6/13/2017 04:50 PM
Alkalinity, Total (as CaCO3)	480		10	mg/L	1	6/13/2017 04:50 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	16		1.0	mg/L	1	6/22/2017 10:19 AM
Sulfate	21		2.0	mg/L	2	6/22/2017 07:53 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	5.8		1.0	mg/L	2	6/20/2017 01:05 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-OW2(33)-G060617
 Collection Date: 6/6/2017 04:20 PM

Work Order: 1706567
 Lab ID: 1706567-42
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	9.2		0.080	mg/L	1	6/16/2017 02:33 AM
Manganese	0.85		0.0050	mg/L	1	6/16/2017 02:33 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 06:06 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 06:06 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Acetone	ND		10	µg/L	1	6/15/2017 06:06 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
cis-1,2-Dichloroethene	1.7		1.0	µg/L	1	6/15/2017 06:06 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 06:06 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 06:06 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 06:06 PM
Vinyl chloride	2.2		1.0	µg/L	1	6/15/2017 06:06 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW2(33)-G060617
Collection Date: 6/6/2017 04:20 PM

Work Order: 1706567
Lab ID: 1706567-42
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 06:06 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	107		75-120	%REC	1	6/15/2017 06:06 PM
<i>Surr: 4-Bromofluorobenzene</i>	92.2		80-110	%REC	1	6/15/2017 06:06 PM
<i>Surr: Dibromofluoromethane</i>	109		85-115	%REC	1	6/15/2017 06:06 PM
<i>Surr: Toluene-d8</i>	92.6		85-110	%REC	1	6/15/2017 06:06 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	390		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	390		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	28		2.0	mg/L	2	6/22/2017 10:39 AM
Sulfate	ND		2.0	mg/L	2	6/22/2017 10:39 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	18		10	mg/L	20	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-EB003-G060617
Collection Date: 6/6/2017 04:40 PM

Work Order: 1706567
Lab ID: 1706567-43
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 09:28 AM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 02:41 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 09:28 AM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 02:41 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 09:28 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Acetone	ND		10	µg/L	1	6/15/2017 02:41 PM
Acetone	ND		10	µg/L	1	6/15/2017 09:28 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Benzene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chloroform	ND		1.0	µg/L	1	6/15/2017 02:41 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-EB003-G060617

Lab ID: 1706567-43

Collection Date: 6/6/2017 04:40 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 02:41 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 09:28 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 09:28 AM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 02:41 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Styrene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Toluene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 09:28 AM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 02:41 PM
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 09:28 AM
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 02:41 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>109</i>		<i>75-120</i>	<i>%REC</i>	<i>1</i>	<i>6/15/2017 09:28 AM</i>
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>109</i>		<i>75-120</i>	<i>%REC</i>	<i>1</i>	<i>6/15/2017 02:41 PM</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>92.8</i>		<i>80-110</i>	<i>%REC</i>	<i>1</i>	<i>6/15/2017 02:41 PM</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>89.4</i>		<i>80-110</i>	<i>%REC</i>	<i>1</i>	<i>6/15/2017 09:28 AM</i>
<i>Surr: Dibromofluoromethane</i>	<i>110</i>		<i>85-115</i>	<i>%REC</i>	<i>1</i>	<i>6/15/2017 09:28 AM</i>
<i>Surr: Dibromofluoromethane</i>	<i>108</i>		<i>85-115</i>	<i>%REC</i>	<i>1</i>	<i>6/15/2017 02:41 PM</i>
<i>Surr: Toluene-d8</i>	<i>94.2</i>		<i>85-110</i>	<i>%REC</i>	<i>1</i>	<i>6/15/2017 02:41 PM</i>

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-EB003-G060617

Lab ID: 1706567-43

Collection Date: 6/6/2017 04:40 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	94.2		85-110	%REC	1	6/15/2017 09:28 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW4(54)-G060617
Collection Date: 6/6/2017 04:15 PM

Work Order: 1706567
Lab ID: 1706567-44
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	8.8		0.080	mg/L	1	6/16/2017 02:54 AM
Manganese	0.17		0.0050	mg/L	1	6/16/2017 02:54 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
2-Butanone	26		5.0	µg/L	1	6/15/2017 06:32 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 06:32 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Acetone	10		10	µg/L	1	6/15/2017 06:32 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 06:32 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 06:32 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 06:32 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 06:32 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-OW4(54)-G060617
Collection Date: 6/6/2017 04:15 PM

Work Order: 1706567
Lab ID: 1706567-44
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 06:32 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	107		75-120	%REC	1	6/15/2017 06:32 PM
<i>Surr: 4-Bromofluorobenzene</i>	93.5		80-110	%REC	1	6/15/2017 06:32 PM
<i>Surr: Dibromofluoromethane</i>	107		85-115	%REC	1	6/15/2017 06:32 PM
<i>Surr: Toluene-d8</i>	94.0		85-110	%REC	1	6/15/2017 06:32 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	710		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	710		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	4.5		1.0	mg/L	1	6/22/2017 11:00 AM
Sulfate	ND		1.0	mg/L	1	6/22/2017 11:00 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	450		50	mg/L	100	6/20/2017 01:05 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW25(16.4)-G060617
 Collection Date: 6/6/2017 02:25 PM

Work Order: 1706567
 Lab ID: 1706567-45
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	8.3		0.080	mg/L	1	6/16/2017 02:59 AM
Manganese	0.45		0.0050	mg/L	1	6/16/2017 02:59 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 06:58 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 06:58 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Acetone	ND		10	µg/L	1	6/15/2017 06:58 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
cis-1,2-Dichloroethene	2.9		1.0	µg/L	1	6/15/2017 06:58 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 06:58 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 06:58 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 06:58 PM
Vinyl chloride	3.1		1.0	µg/L	1	6/15/2017 06:58 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW25(16.4)-G060617
Collection Date: 6/6/2017 02:25 PM

Work Order: 1706567
Lab ID: 1706567-45
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 06:58 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	111		75-120	%REC	1	6/15/2017 06:58 PM
<i>Surr: 4-Bromofluorobenzene</i>	91.6		80-110	%REC	1	6/15/2017 06:58 PM
<i>Surr: Dibromofluoromethane</i>	108		85-115	%REC	1	6/15/2017 06:58 PM
<i>Surr: Toluene-d8</i>	94.1		85-110	%REC	1	6/15/2017 06:58 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	440		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	440		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	29		5.0	mg/L	5	6/22/2017 11:40 AM
Sulfate	1.8		1.0	mg/L	1	6/22/2017 11:20 AM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	6.1		0.50	mg/L	1	6/20/2017 01:05 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW25(16.4)-G060617R
 Collection Date: 6/6/2017 02:25 PM

Work Order: 1706567
 Lab ID: 1706567-46
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	8.0		0.080	mg/L	1	6/16/2017 03:04 AM
Manganese	0.43		0.0050	mg/L	1	6/16/2017 03:04 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 07:23 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 07:23 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Acetone	ND		10	µg/L	1	6/15/2017 07:23 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
cis-1,2-Dichloroethene	3.1		1.0	µg/L	1	6/15/2017 07:23 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 07:23 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 07:23 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 07:23 PM
Vinyl chloride	3.2		1.0	µg/L	1	6/15/2017 07:23 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW25(16.4)-G060617R
Collection Date: 6/6/2017 02:25 PM

Work Order: 1706567
Lab ID: 1706567-46
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 07:23 PM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	6/15/2017 07:23 PM
Surr: 4-Bromofluorobenzene	88.2		80-110	%REC	1	6/15/2017 07:23 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/15/2017 07:23 PM
Surr: Toluene-d8	93.0		85-110	%REC	1	6/15/2017 07:23 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	430		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	430		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	29		5.0	mg/L	5	6/22/2017 12:21 PM
Sulfate	1.8		1.0	mg/L	1	6/22/2017 12:00 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	6.3		0.50	mg/L	1	6/20/2017 01:05 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW25(32.6)-G060617
 Collection Date: 6/6/2017 01:20 PM

Work Order: 1706567
 Lab ID: 1706567-47
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A		Prep: SW3005A 6/14/17 12:35	Analyst: LR
Iron	19		0.080	mg/L	1	6/16/2017 03:09 AM
Manganese	0.39		0.0050	mg/L	1	6/16/2017 03:09 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
2-Butanone	98		5.0	µg/L	1	6/15/2017 07:49 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 07:49 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Acetone	ND		10	µg/L	1	6/15/2017 07:49 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 07:49 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 07:49 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 07:49 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 07:49 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW25(32.6)-G060617
Collection Date: 6/6/2017 01:20 PM

Work Order: 1706567
Lab ID: 1706567-47
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 07:49 PM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	6/15/2017 07:49 PM
Surr: 4-Bromofluorobenzene	92.9		80-110	%REC	1	6/15/2017 07:49 PM
Surr: Dibromofluoromethane	109		85-115	%REC	1	6/15/2017 07:49 PM
Surr: Toluene-d8	93.0		85-110	%REC	1	6/15/2017 07:49 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	610		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	610		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	21		2.0	mg/L	2	6/22/2017 08:54 PM
Sulfate	ND		1.0	mg/L	1	6/22/2017 03:51 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	91		5.0	mg/L	10	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW25(45.2)-G060617
Collection Date: 6/6/2017 12:05 PM

Work Order: 1706567
Lab ID: 1706567-48
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	49		0.080	mg/L	1	6/16/2017 03:15 AM
Manganese	0.61		0.0050	mg/L	1	6/16/2017 03:15 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
2-Butanone	270		50	µg/L	10	6/15/2017 08:15 PM
2-Hexanone	ND		5.0	µg/L	1	6/17/2017 12:27 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Acetone	16		10	µg/L	1	6/17/2017 12:27 PM
Benzene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Bromoform	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Bromomethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Carbon disulfide	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Chlorobenzene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Chloroethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Chloroform	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Chloromethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Ethylbenzene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
m,p-Xylene	ND		2.0	µg/L	1	6/17/2017 12:27 PM
Methylene chloride	ND		5.0	µg/L	1	6/17/2017 12:27 PM
o-Xylene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Styrene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Toluene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Trichloroethene	ND		1.0	µg/L	1	6/17/2017 12:27 PM
Vinyl chloride	ND		1.0	µg/L	1	6/17/2017 12:27 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW25(45.2)-G060617
Collection Date: 6/6/2017 12:05 PM

Work Order: 1706567
Lab ID: 1706567-48
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/17/2017 12:27 PM
Surr: 1,2-Dichloroethane-d4	108		75-120	%REC	1	6/17/2017 12:27 PM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	10	6/15/2017 08:15 PM
Surr: 4-Bromofluorobenzene	90.6		80-110	%REC	10	6/15/2017 08:15 PM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	1	6/17/2017 12:27 PM
Surr: Dibromofluoromethane	108		85-115	%REC	10	6/15/2017 08:15 PM
Surr: Dibromofluoromethane	107		85-115	%REC	1	6/17/2017 12:27 PM
Surr: Toluene-d8	93.8		85-110	%REC	10	6/15/2017 08:15 PM
Surr: Toluene-d8	93.4		85-110	%REC	1	6/17/2017 12:27 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	680		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	680		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	15		1.0	mg/L	1	6/22/2017 04:51 PM
Sulfate	ND		1.0	mg/L	1	6/22/2017 04:51 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	460		120	mg/L	250	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW15-G060617
Collection Date: 6/6/2017 10:35 AM

Work Order: 1706567
Lab ID: 1706567-49
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	83		0.080	mg/L	1	6/16/2017 03:20 AM
Manganese	0.83		0.0050	mg/L	1	6/16/2017 03:20 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
2-Butanone	150		25	µg/L	5	6/15/2017 08:41 PM
2-Hexanone	ND		5.0	µg/L	1	6/17/2017 01:18 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Acetone	13		10	µg/L	1	6/17/2017 01:18 AM
Benzene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Bromoform	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Bromomethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Carbon disulfide	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Chlorobenzene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Chloroethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Chloroform	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Chloromethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
cis-1,2-Dichloroethene	4.2		1.0	µg/L	1	6/17/2017 01:18 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Ethylbenzene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
m,p-Xylene	ND		2.0	µg/L	1	6/17/2017 01:18 AM
Methylene chloride	ND		5.0	µg/L	1	6/17/2017 01:18 AM
o-Xylene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Styrene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Toluene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
trans-1,2-Dichloroethene	24		1.0	µg/L	1	6/17/2017 01:18 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Trichloroethene	ND		1.0	µg/L	1	6/17/2017 01:18 AM
Vinyl chloride	8.8		1.0	µg/L	1	6/17/2017 01:18 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW15-G060617
Collection Date: 6/6/2017 10:35 AM

Work Order: 1706567
Lab ID: 1706567-49
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/17/2017 01:18 AM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	1	6/17/2017 01:18 AM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	5	6/15/2017 08:41 PM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	5	6/15/2017 08:41 PM
Surr: 4-Bromofluorobenzene	95.2		80-110	%REC	1	6/17/2017 01:18 AM
Surr: Dibromofluoromethane	107		85-115	%REC	5	6/15/2017 08:41 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/17/2017 01:18 AM
Surr: Toluene-d8	94.8		85-110	%REC	5	6/15/2017 08:41 PM
Surr: Toluene-d8	92.1		85-110	%REC	1	6/17/2017 01:18 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	760		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	760		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	28		5.0	mg/L	5	6/22/2017 09:55 PM
Sulfate	ND		1.0	mg/L	1	6/22/2017 05:12 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	600		50	mg/L	100	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW24(24.9)-G060617
Collection Date: 6/6/2017 04:35 PM

Work Order: 1706567
Lab ID: 1706567-50
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	1.2		0.080	mg/L	1	6/16/2017 03:25 AM
Manganese	0.59		0.0050	mg/L	1	6/16/2017 03:25 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 09:06 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 09:06 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Acetone	ND		10	µg/L	1	6/15/2017 09:06 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 09:06 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 09:06 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 09:06 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 09:06 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Sample ID: ATR-MW24(24.9)-G060617

Collection Date: 6/6/2017 04:35 PM

Work Order: 1706567

Lab ID: 1706567-50

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 09:06 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	110		75-120	%REC	1	6/15/2017 09:06 PM
<i>Surr: 4-Bromofluorobenzene</i>	92.6		80-110	%REC	1	6/15/2017 09:06 PM
<i>Surr: Dibromofluoromethane</i>	109		85-115	%REC	1	6/15/2017 09:06 PM
<i>Surr: Toluene-d8</i>	95.0		85-110	%REC	1	6/15/2017 09:06 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	250		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	250		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	34		5.0	mg/L	5	6/22/2017 05:32 PM
Sulfate	19		5.0	mg/L	5	6/22/2017 05:32 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	2.6		0.50	mg/L	1	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW26(17.5)-G060617
 Collection Date: 6/6/2017 03:15 PM

Work Order: 1706567
 Lab ID: 1706567-51
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	12		0.080	mg/L	1	6/16/2017 03:31 AM
Manganese	0.46		0.0050	mg/L	1	6/16/2017 03:31 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
2-Butanone	ND		5.0	µg/L	1	6/15/2017 09:32 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 09:32 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Acetone	ND		10	µg/L	1	6/15/2017 09:32 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 09:32 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 09:32 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 09:32 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 09:32 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW26(17.5)-G060617
Collection Date: 6/6/2017 03:15 PM

Work Order: 1706567
Lab ID: 1706567-51
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 09:32 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	110		75-120	%REC	1	6/15/2017 09:32 PM
<i>Surr: 4-Bromofluorobenzene</i>	90.5		80-110	%REC	1	6/15/2017 09:32 PM
<i>Surr: Dibromofluoromethane</i>	110		85-115	%REC	1	6/15/2017 09:32 PM
<i>Surr: Toluene-d8</i>	92.2		85-110	%REC	1	6/15/2017 09:32 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	450		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	450		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	19		2.0	mg/L	2	6/23/2017 01:17 AM
Sulfate	ND		1.0	mg/L	1	6/22/2017 05:52 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	4.6		0.50	mg/L	1	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-MW26(28.8)-G060617
 Collection Date: 6/6/2017 02:00 PM

Work Order: 1706567
 Lab ID: 1706567-52
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	38		0.080	mg/L	1	6/16/2017 03:36 AM
Manganese	0.34		0.0050	mg/L	1	6/16/2017 03:36 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
2-Butanone	5.8		5.0	µg/L	1	6/15/2017 09:57 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 09:57 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Acetone	ND		10	µg/L	1	6/15/2017 09:57 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 09:57 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 09:57 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 09:57 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 09:57 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW26(28.8)-G060617
Collection Date: 6/6/2017 02:00 PM

Work Order: 1706567
Lab ID: 1706567-52
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 09:57 PM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	6/15/2017 09:57 PM
Surr: 4-Bromofluorobenzene	92.2		80-110	%REC	1	6/15/2017 09:57 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/15/2017 09:57 PM
Surr: Toluene-d8	94.8		85-110	%REC	1	6/15/2017 09:57 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	510		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	510		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	17		1.0	mg/L	1	6/22/2017 06:12 PM
Sulfate	ND		1.0	mg/L	1	6/22/2017 06:12 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	55		10	mg/L	20	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW26(58.2)-G060617
Collection Date: 6/6/2017 12:45 PM

Work Order: 1706567
Lab ID: 1706567-53
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	24		0.080	mg/L	1	6/16/2017 03:41 AM
Manganese	0.46		0.0050	mg/L	1	6/16/2017 03:41 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
2-Butanone	89		5.0	µg/L	1	6/15/2017 10:23 PM
2-Hexanone	ND		5.0	µg/L	1	6/15/2017 10:23 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Acetone	13		10	µg/L	1	6/15/2017 10:23 PM
Benzene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Bromoform	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Bromomethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Carbon disulfide	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Chlorobenzene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Chloroethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Chloroform	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Chloromethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Ethylbenzene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
m,p-Xylene	ND		2.0	µg/L	1	6/15/2017 10:23 PM
Methylene chloride	ND		5.0	µg/L	1	6/15/2017 10:23 PM
o-Xylene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Styrene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Toluene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Trichloroethene	ND		1.0	µg/L	1	6/15/2017 10:23 PM
Vinyl chloride	ND		1.0	µg/L	1	6/15/2017 10:23 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW26(58.2)-G060617
Collection Date: 6/6/2017 12:45 PM

Work Order: 1706567
Lab ID: 1706567-53
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/15/2017 10:23 PM
Surr: 1,2-Dichloroethane-d4	109		75-120	%REC	1	6/15/2017 10:23 PM
Surr: 4-Bromofluorobenzene	91.0		80-110	%REC	1	6/15/2017 10:23 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/15/2017 10:23 PM
Surr: Toluene-d8	93.6		85-110	%REC	1	6/15/2017 10:23 PM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	400		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	400		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	7.5		1.0	mg/L	1	6/22/2017 06:33 PM
Sulfate	ND		1.0	mg/L	1	6/22/2017 06:33 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	95		5.0	mg/L	10	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-EB002-G060617
Collection Date: 6/6/2017 11:55 AM

Work Order: 1706567
Lab ID: 1706567-54
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
2-Butanone	ND		5.0	µg/L	1	6/16/2017 02:38 AM
2-Hexanone	ND		5.0	µg/L	1	6/16/2017 02:38 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Acetone	ND		10	µg/L	1	6/16/2017 02:38 AM
Benzene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Bromoform	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Bromomethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Carbon disulfide	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Chlorobenzene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Chloroethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Chloroform	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Chloromethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Ethylbenzene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
m,p-Xylene	ND		2.0	µg/L	1	6/16/2017 02:38 AM
Methylene chloride	ND		5.0	µg/L	1	6/16/2017 02:38 AM
o-Xylene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Styrene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Toluene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Trichloroethene	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Vinyl chloride	ND		1.0	µg/L	1	6/16/2017 02:38 AM
Xylenes, Total	ND		3.0	µg/L	1	6/16/2017 02:38 AM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	1	6/16/2017 02:38 AM
Surr: 4-Bromofluorobenzene	93.4		80-110	%REC	1	6/16/2017 02:38 AM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/16/2017 02:38 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler**Project:** TFS Rochester, IN 3359-14-1040**Sample ID:** ATR-EB002-G060617**Collection Date:** 6/6/2017 11:55 AM**Work Order:** 1706567**Lab ID:** 1706567-54**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	92.8		85-110	%REC	1	6/16/2017 02:38 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-TB001-G060617
Collection Date: 6/6/2017

Work Order: 1706567
Lab ID: 1706567-55
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
2-Butanone	ND		5.0	µg/L	1	6/16/2017 03:04 AM
2-Hexanone	ND		5.0	µg/L	1	6/16/2017 03:04 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Acetone	ND		10	µg/L	1	6/16/2017 03:04 AM
Benzene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Bromoform	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Bromomethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Carbon disulfide	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Chlorobenzene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Chloroethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Chloroform	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Chloromethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Ethylbenzene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
m,p-Xylene	ND		2.0	µg/L	1	6/16/2017 03:04 AM
Methylene chloride	ND		5.0	µg/L	1	6/16/2017 03:04 AM
o-Xylene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Styrene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Toluene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Trichloroethene	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Vinyl chloride	ND		1.0	µg/L	1	6/16/2017 03:04 AM
Xylenes, Total	ND		3.0	µg/L	1	6/16/2017 03:04 AM
Surr: 1,2-Dichloroethane-d4	106		75-120	%REC	1	6/16/2017 03:04 AM
Surr: 4-Bromofluorobenzene	93.6		80-110	%REC	1	6/16/2017 03:04 AM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/16/2017 03:04 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-TB001-G060617

Lab ID: 1706567-55

Collection Date: 6/6/2017

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	94.8		85-110	%REC	1	6/16/2017 03:04 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
 Project: TFS Rochester, IN 3359-14-1040
 Sample ID: ATR-TB001-G060717
 Collection Date: 6/7/2017

Work Order: 1706567
 Lab ID: 1706567-56
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
2-Butanone	ND		5.0	µg/L	1	6/14/2017 04:12 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 04:12 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Acetone	ND		10	µg/L	1	6/14/2017 04:12 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 04:12 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 04:12 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Vinyl chloride	ND		1.0	µg/L	1	6/14/2017 04:12 PM
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 04:12 PM
Surr: 1,2-Dichloroethane-d4	112		75-120	%REC	1	6/14/2017 04:12 PM
Surr: 4-Bromofluorobenzene	90.2		80-110	%REC	1	6/14/2017 04:12 PM
Surr: Dibromofluoromethane	106		85-115	%REC	1	6/14/2017 04:12 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Sample ID: ATR-TB001-G060717

Collection Date: 6/7/2017

Work Order: 1706567

Lab ID: 1706567-56

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	94.0		85-110	%REC	1	6/14/2017 04:12 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-TB001-G060817
Collection Date: 6/8/2017

Work Order: 1706567
Lab ID: 1706567-57
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
2-Butanone	ND		5.0	µg/L	1	6/14/2017 04:38 PM
2-Hexanone	ND		5.0	µg/L	1	6/14/2017 04:38 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Acetone	ND		10	µg/L	1	6/14/2017 04:38 PM
Benzene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Bromodichloromethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Bromoform	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Bromomethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Carbon disulfide	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Carbon tetrachloride	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Chlorobenzene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Chloroethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Chloroform	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Chloromethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Dibromochloromethane	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Ethylbenzene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
m,p-Xylene	ND		2.0	µg/L	1	6/14/2017 04:38 PM
Methylene chloride	ND		5.0	µg/L	1	6/14/2017 04:38 PM
o-Xylene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Styrene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Tetrachloroethene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Toluene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Trichloroethene	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Vinyl chloride	ND		1.0	µg/L	1	6/14/2017 04:38 PM
Xylenes, Total	ND		3.0	µg/L	1	6/14/2017 04:38 PM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	1	6/14/2017 04:38 PM
Surr: 4-Bromofluorobenzene	89.2		80-110	%REC	1	6/14/2017 04:38 PM
Surr: Dibromofluoromethane	106		85-115	%REC	1	6/14/2017 04:38 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Work Order: 1706567

Sample ID: ATR-TB001-G060817

Lab ID: 1706567-57

Collection Date: 6/8/2017

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	93.2		85-110	%REC	1	6/14/2017 04:38 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
Sample ID: ATR-MW12-G060717
Collection Date: 6/7/2017 04:20 PM

Work Order: 1706567
Lab ID: 1706567-58
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS			SW6020A	Prep: SW3005A 6/14/17 12:35		Analyst: LR
Iron	24		0.080	mg/L	1	6/16/2017 05:03 AM
Manganese	0.86		0.0050	mg/L	1	6/16/2017 05:03 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: BG
1,1,1-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
2-Butanone	ND		5.0	µg/L	1	6/16/2017 09:54 AM
2-Hexanone	ND		5.0	µg/L	1	6/16/2017 09:54 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Acetone	ND		10	µg/L	1	6/16/2017 09:54 AM
Benzene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Bromodichloromethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Bromoform	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Bromomethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Carbon disulfide	1.0		1.0	µg/L	1	6/16/2017 09:54 AM
Carbon tetrachloride	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Chlorobenzene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Chloroethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Chloroform	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Chloromethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
cis-1,2-Dichloroethene	26		1.0	µg/L	1	6/16/2017 09:54 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Dibromochloromethane	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Ethylbenzene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
m,p-Xylene	ND		2.0	µg/L	1	6/16/2017 09:54 AM
Methylene chloride	ND		5.0	µg/L	1	6/16/2017 09:54 AM
o-Xylene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Styrene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Tetrachloroethene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Toluene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Trichloroethene	ND		1.0	µg/L	1	6/16/2017 09:54 AM
Vinyl chloride	9.6		1.0	µg/L	1	6/16/2017 09:54 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group, USA

Date: 05-Jul-17

Client: AMEC Foster Wheeler

Project: TFS Rochester, IN 3359-14-1040

Sample ID: ATR-MW12-G060717

Collection Date: 6/7/2017 04:20 PM

Work Order: 1706567

Lab ID: 1706567-58

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Xylenes, Total	ND		3.0	µg/L	1	6/16/2017 09:54 AM
Surr: 1,2-Dichloroethane-d4	107		75-120	%REC	1	6/16/2017 09:54 AM
Surr: 4-Bromofluorobenzene	91.2		80-110	%REC	1	6/16/2017 09:54 AM
Surr: Dibromofluoromethane	108		85-115	%REC	1	6/16/2017 09:54 AM
Surr: Toluene-d8	91.0		85-110	%REC	1	6/16/2017 09:54 AM
ALKALINITY			A2320 B-97			Analyst: ED
Alkalinity, Bicarbonate (as CaCO3)	400		10	mg/L	1	6/14/2017 02:45 PM
Alkalinity, Total (as CaCO3)	400		10	mg/L	1	6/14/2017 02:45 PM
ANIONS BY ION CHROMATOGRAPHY			SW9056A			Analyst: EE
Chloride	22		5.0	mg/L	5	6/22/2017 07:13 PM
Sulfate	3.5		1.0	mg/L	1	6/22/2017 06:53 PM
NITROGEN, NITRATE-NITRITE			E353.2 R2.0			Analyst: JJG
Nitrogen, Nitrate-Nitrite	ND		0.020	mg/L	1	6/12/2017 11:20 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	59		10	mg/L	20	6/18/2017 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: AMEC Foster Wheeler
Project: TFS Rochester, IN 3359-14-1040
WorkOrder: 1706567

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

Client: AMEC Foster Wheeler
Work Order: 1706567
Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **103140** Instrument ID **ICPMS2** Method: **SW6020A**

MBLK		Sample ID: MBLK-103140-103140				Units: mg/L		Analysis Date: 6/14/2017 12:16 AM		
Client ID:		Run ID: ICPMS2_170613B			SeqNo: 4478421		Prep Date: 6/13/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	ND	0.080								
Manganese	ND	0.0050								

LCS		Sample ID: LCS-103140-103140				Units: mg/L		Analysis Date: 6/14/2017 12:21 AM		
Client ID:		Run ID: ICPMS2_170613B			SeqNo: 4478422		Prep Date: 6/13/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	11.24	0.080	10	0	112	80-120	0			
Manganese	0.1109	0.0050	0.1	0	111	80-120	0			

MS		Sample ID: 1706567-19DMS				Units: mg/L		Analysis Date: 6/14/2017 12:57 AM		
Client ID: ATR-MW16-G060617		Run ID: ICPMS2_170613B			SeqNo: 4478429		Prep Date: 6/13/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	33.87	0.080	10	21.55	123	75-125	0			
Manganese	0.3863	0.0050	0.1	0.2515	135	75-125	0			S

MSD		Sample ID: 1706567-19DMSD				Units: mg/L		Analysis Date: 6/14/2017 01:02 AM		
Client ID: ATR-MW16-G060617		Run ID: ICPMS2_170613B			SeqNo: 4478430		Prep Date: 6/13/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	33.12	0.080	10	21.55	116	75-125	33.87	2.24	20	
Manganese	0.3577	0.0050	0.1	0.2515	106	75-125	0.3863	7.69	20	

The following samples were analyzed in this batch:

1706567-17D	1706567-18D	1706567-19D
1706567-20D	1706567-21D	1706567-22D
1706567-23D	1706567-24D	1706567-25D
1706567-27D	1706567-28D	1706567-29D
1706567-30D	1706567-31D	1706567-32D
1706567-33D	1706567-35D	1706567-36D
1706567-38D	1706567-39D	

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: 103143 Instrument ID ICPMS2 Method: SW6020A

MBLK		Sample ID: MBLK-103143-103143				Units: mg/L		Analysis Date: 6/13/2017 08:28 PM		
Client ID:		Run ID: ICPMS2_170613B			SeqNo: 4478376		Prep Date: 6/13/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	0.00947	0.080								J
Manganese	ND	0.0050								

LCS		Sample ID: LCS-103143-103143				Units: mg/L		Analysis Date: 6/13/2017 08:33 PM		
Client ID:		Run ID: ICPMS2_170613B			SeqNo: 4478377		Prep Date: 6/13/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	10.29	0.080	10	0	103	80-120	0			
Manganese	0.1036	0.0050	0.1	0	104	80-120	0			

MS		Sample ID: 1706330-21AMS				Units: mg/L		Analysis Date: 6/13/2017 08:53 PM		
Client ID:		Run ID: ICPMS2_170613B			SeqNo: 4478381		Prep Date: 6/13/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	99.2	0.80	100	0.0981	99.1	75-125	0			
Manganese	1.648	0.050	1	0.6783	97	75-125	0			

MSD		Sample ID: 1706330-21AMSD				Units: mg/L		Analysis Date: 6/13/2017 08:58 PM		
Client ID:		Run ID: ICPMS2_170613B			SeqNo: 4478382		Prep Date: 6/13/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	99.94	0.80	100	0.0981	99.8	75-125	99.2	0.743	20	
Manganese	1.619	0.050	1	0.6783	94.1	75-125	1.648	1.78	20	

The following samples were analyzed in this batch:

1706567-01D	1706567-02D	1706567-04D
1706567-05D	1706567-06D	1706567-07D
1706567-09D	1706567-11D	1706567-12D
1706567-13D	1706567-14D	1706567-15D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: 103201 Instrument ID ICPMS2 Method: SW6020A

MBLK		Sample ID: MBLK-103201-103201				Units: mg/L		Analysis Date: 6/16/2017 01:58 AM		
Client ID:		Run ID: ICPMS2_170615A			SeqNo: 4483317		Prep Date: 6/14/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	0.005131	0.080								J
Manganese	ND	0.0050								

LCS		Sample ID: LCS-103201-103201				Units: mg/L		Analysis Date: 6/16/2017 02:03 AM		
Client ID:		Run ID: ICPMS2_170615A			SeqNo: 4483318		Prep Date: 6/14/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	8.701	0.080	10	0	87	80-120	0			
Manganese	0.08934	0.0050	0.1	0	89.3	80-120	0			

MS		Sample ID: 1706567-40DMS				Units: mg/L		Analysis Date: 6/16/2017 02:18 AM		
Client ID: ATR-OW5(16)-G060617		Run ID: ICPMS2_170615A			SeqNo: 4483321		Prep Date: 6/14/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	13.5	0.080	10	5.19	83.1	75-125	0			
Manganese	0.3602	0.0050	0.1	0.3043	55.9	75-125	0			S

MSD		Sample ID: 1706567-40DMSD				Units: mg/L		Analysis Date: 6/16/2017 02:23 AM		
Client ID: ATR-OW5(16)-G060617		Run ID: ICPMS2_170615A			SeqNo: 4483322		Prep Date: 6/14/2017		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	15.49	0.080	10	5.19	103	75-125	13.5	13.7	20	
Manganese	0.4201	0.0050	0.1	0.3043	116	75-125	0.3602	15.4	20	

The following samples were analyzed in this batch:

1706567-16D	1706567-40D	1706567-41D
1706567-42D	1706567-44D	1706567-45D
1706567-46D	1706567-47D	1706567-48D
1706567-49D	1706567-50D	1706567-51D
1706567-52D	1706567-53D	1706567-58D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213832** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: VBLKW1-170614-R213832				Units: µg/L		Analysis Date: 6/14/2017 12:45 PM		
Client ID:		Run ID: VMS5_170614A		SeqNo: 4480980		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,2-Dichloropropane	ND	1.0								
2-Butanone	ND	5.0								
2-Hexanone	ND	5.0								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	10								
Benzene	0.33	1.0								J
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	1.0								
Carbon disulfide	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	1.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-Dichloroethene	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylene chloride	ND	5.0								
o-Xylene	ND	1.0								
Styrene	ND	1.0								
Tetrachloroethene	ND	1.0								
Toluene	ND	1.0								
trans-1,2-Dichloroethene	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	3.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>21.44</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>107</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.61</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>93</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>21.13</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>106</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>18.92</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>94.6</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213832** Instrument ID **VMS5** Method: **SW8260B**

LCS		Sample ID: VLCSW1-170614-R213832				Units: µg/L		Analysis Date: 6/14/2017 11:28 AM		
Client ID:		Run ID: VMS5_170614A			SeqNo: 4480979		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.55	1.0	20	0	108	75-130	0			
1,1,2,2-Tetrachloroethane	20.02	1.0	20	0	100	75-130	0			
1,1,2-Trichloroethane	20.29	1.0	20	0	101	75-125	0			
1,1-Dichloroethane	21.63	1.0	20	0	108	75-133	0			
1,1-Dichloroethene	23.37	1.0	20	0	117	70-145	0			
1,2-Dichloroethane	20.44	1.0	20	0	102	78-125	0			
1,2-Dichloropropane	19.8	1.0	20	0	99	75-125	0			
2-Butanone	19.11	5.0	20	0	95.6	55-150	0			
2-Hexanone	19.62	5.0	20	0	98.1	60-135	0			
4-Methyl-2-pentanone	29.76	1.0	20	0	149	77-178	0			
Acetone	18.81	10	20	0	94	60-160	0			
Benzene	21.38	1.0	20	0	107	85-125	0			
Bromodichloromethane	20.89	1.0	20	0	104	75-125	0			
Bromoform	20.04	1.0	20	0	100	60-125	0			
Bromomethane	16.96	1.0	20	0	84.8	30-185	0			
Carbon disulfide	25.54	1.0	20	0	128	60-165	0			
Carbon tetrachloride	21.81	1.0	20	0	109	65-140	0			
Chlorobenzene	19.22	1.0	20	0	96.1	80-120	0			
Chloroethane	18.91	1.0	20	0	94.6	50-140	0			
Chloroform	20	1.0	20	0	100	80-130	0			
Chloromethane	18.38	1.0	20	0	91.9	46-148	0			
cis-1,2-Dichloroethene	20.72	1.0	20	0	104	75-134	0			
cis-1,3-Dichloropropene	20.97	1.0	20	0	105	70-130	0			
Dibromochloromethane	19.57	1.0	20	0	97.8	60-115	0			
Ethylbenzene	19.33	1.0	20	0	96.6	85-125	0			
m,p-Xylene	39.96	2.0	40	0	99.9	75-130	0			
Methylene chloride	22.1	5.0	20	0	110	75-140	0			
o-Xylene	19.6	1.0	20	0	98	80-125	0			
Styrene	20.35	1.0	20	0	102	83-137	0			
Tetrachloroethene	20.79	1.0	20	0	104	68-166	0			
Toluene	20.09	1.0	20	0	100	85-125	0			
trans-1,2-Dichloroethene	22.05	1.0	20	0	110	80-140	0			
trans-1,3-Dichloropropene	19.75	1.0	20	0	98.8	56-132	0			
Trichloroethene	20.81	1.0	20	0	104	84-130	0			
Vinyl chloride	20.09	1.0	20	0	100	50-136	0			
Xylenes, Total	59.56	3.0	60	0	99.3	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.24</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.96</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.8</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.28</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.83</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.2</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213832** Instrument ID **VMS5** Method: **SW8260B**

MS		Sample ID: 1706567-22A MS				Units: µg/L		Analysis Date: 6/14/2017 08:56 PM		
Client ID: ATR-OW3(35)-G060717		Run ID: VMS5_170614A				SeqNo: 4480995		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22.56	1.0	20	0	113	75-130	0			
1,1,2,2-Tetrachloroethane	19.21	1.0	20	0	96	75-130	0			
1,1,2-Trichloroethane	20.7	1.0	20	0	104	75-125	0			
1,1-Dichloroethane	22.53	1.0	20	0	113	75-133	0			
1,1-Dichloroethene	25.46	1.0	20	0	127	70-145	0			
1,2-Dichloroethane	20.37	1.0	20	0	102	78-125	0			
1,2-Dichloropropane	19.37	1.0	20	0	96.8	75-125	0			
2-Butanone	18.04	5.0	20	0	90.2	55-150	0			
2-Hexanone	19.28	5.0	20	0	96.4	60-135	0			
4-Methyl-2-pentanone	28.32	1.0	20	0	142	77-178	0			
Acetone	16.53	10	20	0	82.6	60-160	0			
Benzene	21.54	1.0	20	0	108	85-125	0			
Bromodichloromethane	21.48	1.0	20	0	107	75-125	0			
Bromoform	19.2	1.0	20	0	96	60-125	0			
Bromomethane	15.38	1.0	20	0	76.9	30-185	0			
Carbon disulfide	26.89	1.0	20	0	134	60-165	0			
Carbon tetrachloride	23.54	1.0	20	0	118	65-140	0			
Chlorobenzene	19.29	1.0	20	0	96.4	80-120	0			
Chloroethane	19.8	1.0	20	0	99	50-140	0			
Chloroform	20.77	1.0	20	0	104	80-130	0			
Chloromethane	19.49	1.0	20	0	97.4	46-148	0			
cis-1,2-Dichloroethene	20.62	1.0	20	0	103	75-134	0			
cis-1,3-Dichloropropene	20.15	1.0	20	0	101	70-130	0			
Dibromochloromethane	19.58	1.0	20	0	97.9	60-115	0			
Ethylbenzene	20.13	1.0	20	0	101	85-125	0			
m,p-Xylene	40.91	2.0	40	0	102	75-130	0			
Methylene chloride	22.28	5.0	20	0	111	75-140	0			
o-Xylene	19.86	1.0	20	0	99.3	80-125	0			
Styrene	20.68	1.0	20	0	103	83-137	0			
Tetrachloroethene	21.74	1.0	20	0	109	68-166	0			
Toluene	20.23	1.0	20	0	101	85-125	0			
trans-1,2-Dichloroethene	23.5	1.0	20	0	118	80-140	0			
trans-1,3-Dichloropropene	19.14	1.0	20	0	95.7	56-132	0			
Trichloroethene	21.56	1.0	20	0	108	84-130	0			
Vinyl chloride	22.79	1.0	20	0	114	50-136	0			
Xylenes, Total	60.77	3.0	60	0	101	80-126	0			
Surr: 1,2-Dichloroethane-d4	20.83	0	20	0	104	75-120	0			
Surr: 4-Bromofluorobenzene	19.84	0	20	0	99.2	80-110	0			
Surr: Dibromofluoromethane	20.46	0	20	0	102	85-115	0			
Surr: Toluene-d8	19.66	0	20	0	98.3	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213832** Instrument ID **VMS5** Method: **SW8260B**

MSD		Sample ID: 1706567-22A MSD				Units: µg/L		Analysis Date: 6/14/2017 09:22 PM		
Client ID: ATR-OW3(35)-G060717		Run ID: VMS5_170614A				SeqNo: 4480996		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	24.03	1.0	20	0	120	75-130	22.56	6.31	30	
1,1,2,2-Tetrachloroethane	20.38	1.0	20	0	102	75-130	19.21	5.91	30	
1,1,2-Trichloroethane	21.12	1.0	20	0	106	75-125	20.7	2.01	30	
1,1-Dichloroethane	23.56	1.0	20	0	118	75-133	22.53	4.47	30	
1,1-Dichloroethene	26.92	1.0	20	0	135	70-145	25.46	5.57	30	
1,2-Dichloroethane	22.08	1.0	20	0	110	78-125	20.37	8.06	30	
1,2-Dichloropropane	21.65	1.0	20	0	108	75-125	19.37	11.1	30	
2-Butanone	19.27	5.0	20	0	96.4	55-150	18.04	6.59	30	
2-Hexanone	20.82	5.0	20	0	104	60-135	19.28	7.68	30	
4-Methyl-2-pentanone	31.36	1.0	20	0	157	77-178	28.32	10.2	30	
Acetone	18.7	10	20	0	93.5	60-160	16.53	12.3	30	
Benzene	22.68	1.0	20	0	113	85-125	21.54	5.16	30	
Bromodichloromethane	22.69	1.0	20	0	113	75-125	21.48	5.48	30	
Bromoform	20.74	1.0	20	0	104	60-125	19.2	7.71	30	
Bromomethane	16.15	1.0	20	0	80.8	30-185	15.38	4.88	30	
Carbon disulfide	28.48	1.0	20	0	142	60-165	26.89	5.74	30	
Carbon tetrachloride	24.41	1.0	20	0	122	65-140	23.54	3.63	30	
Chlorobenzene	20.79	1.0	20	0	104	80-120	19.29	7.49	30	
Chloroethane	20.91	1.0	20	0	105	50-140	19.8	5.45	30	
Chloroform	21.78	1.0	20	0	109	80-130	20.77	4.75	30	
Chloromethane	20.41	1.0	20	0	102	46-148	19.49	4.61	30	
cis-1,2-Dichloroethene	22.2	1.0	20	0	111	75-134	20.62	7.38	30	
cis-1,3-Dichloropropene	22.06	1.0	20	0	110	70-130	20.15	9.05	30	
Dibromochloromethane	20.84	1.0	20	0	104	60-115	19.58	6.23	30	
Ethylbenzene	21.49	1.0	20	0	107	85-125	20.13	6.54	30	
m,p-Xylene	43.74	2.0	40	0	109	75-130	40.91	6.69	30	
Methylene chloride	23.46	5.0	20	0	117	75-140	22.28	5.16	30	
o-Xylene	21.53	1.0	20	0	108	80-125	19.86	8.07	30	
Styrene	22.09	1.0	20	0	110	83-137	20.68	6.59	30	
Tetrachloroethene	22.83	1.0	20	0	114	68-166	21.74	4.89	30	
Toluene	21.53	1.0	20	0	108	85-125	20.23	6.23	30	
trans-1,2-Dichloroethene	24.68	1.0	20	0	123	80-140	23.5	4.9	30	
trans-1,3-Dichloropropene	20.51	1.0	20	0	103	56-132	19.14	6.91	30	
Trichloroethene	22.65	1.0	20	0	113	84-130	21.56	4.93	30	
Vinyl chloride	24.04	1.0	20	0	120	50-136	22.79	5.34	30	
Xylenes, Total	65.27	3.0	60	0	109	80-126	60.77	7.14	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.63</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>103</i>	<i>75-120</i>	<i>20.83</i>	<i>0.965</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.5</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>80-110</i>	<i>19.84</i>	<i>3.27</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>20.79</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>85-115</i>	<i>20.46</i>	<i>1.6</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>20.02</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>100</i>	<i>85-110</i>	<i>19.66</i>	<i>1.81</i>	<i>30</i>	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
Work Order: 1706567
Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213832** Instrument ID **VMS5** Method: **SW8260B**

The following samples were analyzed in this batch:

1706567-01A	1706567-02A	1706567-03A
1706567-04A	1706567-06A	1706567-07A
1706567-09A	1706567-10A	1706567-11A
1706567-12A	1706567-13A	1706567-22A
1706567-56A	1706567-57A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1
QC Page: 8 of 41

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213911** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: VBLKW2-170614-R213911				Units: µg/L		Analysis Date: 6/15/2017 12:57 PM		
Client ID:		Run ID: VMS5_170614B		SeqNo: 4481672		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,2-Dichloropropane	ND	1.0								
2-Butanone	ND	5.0								
2-Hexanone	ND	5.0								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	10								
Benzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	1.0								
Carbon disulfide	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	1.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-Dichloroethene	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylene chloride	ND	5.0								
o-Xylene	ND	1.0								
Styrene	ND	1.0								
Tetrachloroethene	ND	1.0								
Toluene	ND	1.0								
trans-1,2-Dichloroethene	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	3.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.71</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.9</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>94.5</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.66</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>103</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.11</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>95.6</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213911** Instrument ID **VMS5** Method: **SW8260B**

LCS		Sample ID: VLCSW2-170614-R213911				Units: µg/L		Analysis Date: 6/15/2017 12:05 PM		
Client ID:		Run ID: VMS5_170614B			SeqNo: 4481671		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.42	1.0	20	0	107	75-130	0			
1,1,2,2-Tetrachloroethane	19.63	1.0	20	0	98.2	75-130	0			
1,1,2-Trichloroethane	20.51	1.0	20	0	103	75-125	0			
1,1-Dichloroethane	22.01	1.0	20	0	110	75-133	0			
1,1-Dichloroethene	24.73	1.0	20	0	124	70-145	0			
1,2-Dichloroethane	20.14	1.0	20	0	101	78-125	0			
1,2-Dichloropropane	20	1.0	20	0	100	75-125	0			
2-Butanone	18.61	5.0	20	0	93	55-150	0			
2-Hexanone	20.31	5.0	20	0	102	60-135	0			
4-Methyl-2-pentanone	30.87	1.0	20	0	154	77-178	0			
Acetone	17.72	10	20	0	88.6	60-160	0			
Benzene	20.91	1.0	20	0	105	85-125	0			
Bromodichloromethane	20.54	1.0	20	0	103	75-125	0			
Bromoform	19.43	1.0	20	0	97.2	60-125	0			
Bromomethane	19.03	1.0	20	0	95.2	30-185	0			
Carbon disulfide	25.39	1.0	20	0	127	60-165	0			
Carbon tetrachloride	22.08	1.0	20	0	110	65-140	0			
Chlorobenzene	19.55	1.0	20	0	97.8	80-120	0			
Chloroethane	19.36	1.0	20	0	96.8	50-140	0			
Chloroform	20.18	1.0	20	0	101	80-130	0			
Chloromethane	19	1.0	20	0	95	46-148	0			
cis-1,2-Dichloroethene	20.91	1.0	20	0	105	75-134	0			
cis-1,3-Dichloropropene	20.9	1.0	20	0	104	70-130	0			
Dibromochloromethane	19.79	1.0	20	0	99	60-115	0			
Ethylbenzene	20.1	1.0	20	0	100	85-125	0			
m,p-Xylene	40.58	2.0	40	0	101	75-130	0			
Methylene chloride	22.19	5.0	20	0	111	75-140	0			
o-Xylene	20.18	1.0	20	0	101	80-125	0			
Styrene	20.9	1.0	20	0	104	83-137	0			
Tetrachloroethene	20.99	1.0	20	0	105	68-166	0			
Toluene	20.12	1.0	20	0	101	85-125	0			
trans-1,2-Dichloroethene	23.13	1.0	20	0	116	80-140	0			
trans-1,3-Dichloropropene	20.01	1.0	20	0	100	56-132	0			
Trichloroethene	20.65	1.0	20	0	103	84-130	0			
Vinyl chloride	21.71	1.0	20	0	109	50-136	0			
Xylenes, Total	60.76	3.0	60	0	101	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.85</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.2</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.45</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>19.94</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.7</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.98</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.9</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213911** Instrument ID **VMS5** Method: **SW8260B**

MS		Sample ID: 1706567-23A MS				Units: µg/L		Analysis Date: 6/15/2017 09:54 AM			
Client ID: ATR-OW1(39)-G060717		Run ID: VMS5_170614B				SeqNo: 4481669		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	19.17	1.0	20	0	95.8	75-130	0				
1,1,2,2-Tetrachloroethane	15.5	1.0	20	0	77.5	75-130	0				
1,1,2-Trichloroethane	17.38	1.0	20	0	86.9	75-125	0				
1,1-Dichloroethane	19.6	1.0	20	0	98	75-133	0				
1,1-Dichloroethene	22.4	1.0	20	0	112	70-145	0				
1,2-Dichloroethane	17.5	1.0	20	0	87.5	78-125	0				
1,2-Dichloropropane	17.03	1.0	20	0	85.2	75-125	0				
2-Butanone	16.32	5.0	20	0	81.6	55-150	0				
2-Hexanone	16.35	5.0	20	0	81.8	60-135	0				
4-Methyl-2-pentanone	23.44	1.0	20	0	117	77-178	0				
Acetone	18.89	10	20	0	94.4	60-160	0				
Benzene	18.32	1.0	20	0	91.6	85-125	0				
Bromodichloromethane	17.76	1.0	20	0	88.8	75-125	0				
Bromoform	16.61	1.0	20	0	83	60-125	0				
Bromomethane	7.47	1.0	20	0	37.4	30-185	0				
Carbon disulfide	23.62	1.0	20	0	118	60-165	0				
Carbon tetrachloride	19.73	1.0	20	0	98.6	65-140	0				
Chlorobenzene	16.44	1.0	20	0	82.2	80-120	0				
Chloroethane	17.46	1.0	20	0	87.3	50-140	0				
Chloroform	17.78	1.0	20	0	88.9	80-130	0				
Chloromethane	17.18	1.0	20	0	85.9	46-148	0				
cis-1,2-Dichloroethene	17.83	1.0	20	0	89.2	75-134	0				
cis-1,3-Dichloropropene	16.54	1.0	20	0	82.7	70-130	0				
Dibromochloromethane	16.58	1.0	20	0	82.9	60-115	0				
Ethylbenzene	16.61	1.0	20	0	83	85-125	0			S	
m,p-Xylene	33.9	2.0	40	0	84.8	75-130	0				
Methylene chloride	19.89	5.0	20	0	99.4	75-140	0				
o-Xylene	16.82	1.0	20	0	84.1	80-125	0				
Styrene	17.33	1.0	20	0	86.6	83-137	0				
Tetrachloroethene	17.75	1.0	20	0	88.8	68-166	0				
Toluene	17.51	1.0	20	0.35	85.8	85-125	0				
trans-1,2-Dichloroethene	20.6	1.0	20	0	103	80-140	0				
trans-1,3-Dichloropropene	15.62	1.0	20	0	78.1	56-132	0				
Trichloroethene	18.3	1.0	20	0	91.5	84-130	0				
Vinyl chloride	19.27	1.0	20	0	96.4	50-136	0				
Xylenes, Total	50.72	3.0	60	0	84.5	80-126	0				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.56</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>103</i>	<i>75-120</i>	<i>0</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.2</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>80-110</i>	<i>0</i>				
<i>Surr: Dibromofluoromethane</i>	<i>20.4</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>85-115</i>	<i>0</i>				
<i>Surr: Toluene-d8</i>	<i>19.88</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.4</i>	<i>85-110</i>	<i>0</i>				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213911** Instrument ID **VMS5** Method: **SW8260B**

MSD		Sample ID: 1706567-23A MSD				Units: µg/L		Analysis Date: 6/15/2017 10:19 AM		
Client ID: ATR-OW1(39)-G060717		Run ID: VMS5_170614B		SeqNo: 4481670		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.83	1.0	20	0	104	75-130	19.17	8.3	30	
1,1,2,2-Tetrachloroethane	17.45	1.0	20	0	87.2	75-130	15.5	11.8	30	
1,1,2-Trichloroethane	19.38	1.0	20	0	96.9	75-125	17.38	10.9	30	
1,1-Dichloroethane	20.72	1.0	20	0	104	75-133	19.6	5.56	30	
1,1-Dichloroethene	23.28	1.0	20	0	116	70-145	22.4	3.85	30	
1,2-Dichloroethane	18.7	1.0	20	0	93.5	78-125	17.5	6.63	30	
1,2-Dichloropropane	18.5	1.0	20	0	92.5	75-125	17.03	8.27	30	
2-Butanone	18.7	5.0	20	0	93.5	55-150	16.32	13.6	30	
2-Hexanone	19.15	5.0	20	0	95.8	60-135	16.35	15.8	30	
4-Methyl-2-pentanone	28.98	1.0	20	0	145	77-178	23.44	21.1	30	
Acetone	22.2	10	20	0	111	60-160	18.89	16.1	30	
Benzene	19.78	1.0	20	0	98.9	85-125	18.32	7.66	30	
Bromodichloromethane	19.78	1.0	20	0	98.9	75-125	17.76	10.8	30	
Bromoform	18.04	1.0	20	0	90.2	60-125	16.61	8.25	30	
Bromomethane	8.93	1.0	20	0	44.6	30-185	7.47	17.8	30	
Carbon disulfide	24.97	1.0	20	0	125	60-165	23.62	5.56	30	
Carbon tetrachloride	20.88	1.0	20	0	104	65-140	19.73	5.66	30	
Chlorobenzene	17.99	1.0	20	0	90	80-120	16.44	9	30	
Chloroethane	17.76	1.0	20	0	88.8	50-140	17.46	1.7	30	
Chloroform	19.15	1.0	20	0	95.8	80-130	17.78	7.42	30	
Chloromethane	17.57	1.0	20	0	87.8	46-148	17.18	2.24	30	
cis-1,2-Dichloroethene	18.87	1.0	20	0	94.4	75-134	17.83	5.67	30	
cis-1,3-Dichloropropene	18.28	1.0	20	0	91.4	70-130	16.54	9.99	30	
Dibromochloromethane	18.47	1.0	20	0	92.4	60-115	16.58	10.8	30	
Ethylbenzene	18.26	1.0	20	0	91.3	85-125	16.61	9.46	30	
m,p-Xylene	37.23	2.0	40	0	93.1	75-130	33.9	9.36	30	
Methylene chloride	20.64	5.0	20	0	103	75-140	19.89	3.7	30	
o-Xylene	18.31	1.0	20	0	91.6	80-125	16.82	8.48	30	
Styrene	18.7	1.0	20	0	93.5	83-137	17.33	7.6	30	
Tetrachloroethene	18.9	1.0	20	0	94.5	68-166	17.75	6.28	30	
Toluene	19.16	1.0	20	0.35	94	85-125	17.51	9	30	
trans-1,2-Dichloroethene	21.93	1.0	20	0	110	80-140	20.6	6.25	30	
trans-1,3-Dichloropropene	16.81	1.0	20	0	84	56-132	15.62	7.34	30	
Trichloroethene	19.59	1.0	20	0	98	84-130	18.3	6.81	30	
Vinyl chloride	19.97	1.0	20	0	99.8	50-136	19.27	3.57	30	
Xylenes, Total	55.54	3.0	60	0	92.6	80-126	50.72	9.07	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.33</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>75-120</i>	<i>20.56</i>	<i>1.12</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.29</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>80-110</i>	<i>20.2</i>	<i>0.445</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>20.79</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>85-115</i>	<i>20.4</i>	<i>1.89</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>19.9</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.5</i>	<i>85-110</i>	<i>19.88</i>	<i>0.101</i>	<i>30</i>	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
Work Order: 1706567
Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213911** Instrument ID **VMS5** Method: **SW8260B**

The following samples were analyzed in this batch:

1706567-14A	1706567-15A	1706567-16A
1706567-17A	1706567-18A	1706567-19A
1706567-20A	1706567-21A	1706567-23A
1706567-24A	1706567-25A	1706567-26A
1706567-27A	1706567-28A	1706567-29A
1706567-30A	1706567-31A	1706567-32A
1706567-33A	1706567-34A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213950** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: VBLKW1-170615-R213950				Units: µg/L		Analysis Date: 6/15/2017 01:50 PM		
Client ID:		Run ID: VMS5_170615A		SeqNo: 4483494		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,2-Dichloropropane	ND	1.0								
2-Butanone	ND	5.0								
2-Hexanone	ND	5.0								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	10								
Benzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	1.0								
Carbon disulfide	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	1.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-Dichloroethene	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylene chloride	ND	5.0								
o-Xylene	ND	1.0								
Styrene	ND	1.0								
Tetrachloroethene	ND	1.0								
Toluene	ND	1.0								
trans-1,2-Dichloroethene	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	3.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.44</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.78</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>93.9</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.77</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.27</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.4</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213950** Instrument ID **VMS5** Method: **SW8260B**

LCS		Sample ID: VLCSW1-170615-R213950				Units: µg/L		Analysis Date: 6/15/2017 12:59 PM		
Client ID:		Run ID: VMS5_170615A			SeqNo: 4483493		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.53	1.0	20	0	108	75-130	0			
1,1,2,2-Tetrachloroethane	20.06	1.0	20	0	100	75-130	0			
1,1,2-Trichloroethane	20.36	1.0	20	0	102	75-125	0			
1,1-Dichloroethane	22.49	1.0	20	0	112	75-133	0			
1,1-Dichloroethene	24.17	1.0	20	0	121	70-145	0			
1,2-Dichloroethane	20.23	1.0	20	0	101	78-125	0			
1,2-Dichloropropane	20.48	1.0	20	0	102	75-125	0			
2-Butanone	20.1	5.0	20	0	100	55-150	0			
2-Hexanone	20.45	5.0	20	0	102	60-135	0			
4-Methyl-2-pentanone	30.95	1.0	20	0	155	77-178	0			
Acetone	19.06	10	20	0	95.3	60-160	0			
Benzene	21.36	1.0	20	0	107	85-125	0			
Bromodichloromethane	20.98	1.0	20	0	105	75-125	0			
Bromoform	20.06	1.0	20	0	100	60-125	0			
Bromomethane	15.43	1.0	20	0	77.2	30-185	0			
Carbon disulfide	26.21	1.0	20	0	131	60-165	0			
Carbon tetrachloride	21.58	1.0	20	0	108	65-140	0			
Chlorobenzene	19.55	1.0	20	0	97.8	80-120	0			
Chloroethane	19	1.0	20	0	95	50-140	0			
Chloroform	20.68	1.0	20	0	103	80-130	0			
Chloromethane	18.6	1.0	20	0	93	46-148	0			
cis-1,2-Dichloroethene	21.4	1.0	20	0	107	75-134	0			
cis-1,3-Dichloropropene	21.3	1.0	20	0	106	70-130	0			
Dibromochloromethane	19.74	1.0	20	0	98.7	60-115	0			
Ethylbenzene	19.69	1.0	20	0	98.4	85-125	0			
m,p-Xylene	40.07	2.0	40	0	100	75-130	0			
Methylene chloride	22.18	5.0	20	0	111	75-140	0			
o-Xylene	19.89	1.0	20	0	99.4	80-125	0			
Styrene	20.51	1.0	20	0	103	83-137	0			
Tetrachloroethene	20.08	1.0	20	0	100	68-166	0			
Toluene	20.11	1.0	20	0	101	85-125	0			
trans-1,2-Dichloroethene	22.7	1.0	20	0	114	80-140	0			
trans-1,3-Dichloropropene	20.08	1.0	20	0	100	56-132	0			
Trichloroethene	21.58	1.0	20	0	108	84-130	0			
Vinyl chloride	20.01	1.0	20	0	100	50-136	0			
Xylenes, Total	59.96	3.0	60	0	99.9	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.41</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.12</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.44</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.74</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98.7</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213950** Instrument ID **VMS5** Method: **SW8260B**

MS		Sample ID: 1706567-05A MS				Units: µg/L		Analysis Date: 6/15/2017 10:48 PM		
Client ID: ATR-MW78-G060817		Run ID: VMS5_170615A			SeqNo: 4483515		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	23.99	1.0	20	0	120	75-130	0			
1,1,2,2-Tetrachloroethane	20.75	1.0	20	0	104	75-130	0			
1,1,2-Trichloroethane	22.03	1.0	20	0	110	75-125	0			
1,1-Dichloroethane	23.98	1.0	20	0	120	75-133	0			
1,1-Dichloroethene	23.74	1.0	20	0	119	70-145	0			
1,2-Dichloroethane	21.75	1.0	20	0	109	78-125	0			
1,2-Dichloropropane	22.23	1.0	20	0	111	75-125	0			
2-Butanone	21.47	5.0	20	0	107	55-150	0			
2-Hexanone	20.7	5.0	20	0	104	60-135	0			
4-Methyl-2-pentanone	30.71	1.0	20	0	154	77-178	0			
Acetone	23.5	10	20	0	118	60-160	0			
Benzene	22.62	1.0	20	0	113	85-125	0			
Bromodichloromethane	23.11	1.0	20	0	116	75-125	0			
Bromoform	21.29	1.0	20	0	106	60-125	0			
Bromomethane	10.25	1.0	20	0	51.2	30-185	0			
Carbon disulfide	23.1	1.0	20	0	116	60-165	0			
Carbon tetrachloride	25.36	1.0	20	0	127	65-140	0			
Chlorobenzene	21.03	1.0	20	0	105	80-120	0			
Chloroethane	16.31	1.0	20	0	81.6	50-140	0			
Chloroform	22.75	1.0	20	0	114	80-130	0			
Chloromethane	12.56	1.0	20	0	62.8	46-148	0			
cis-1,2-Dichloroethene	22.88	1.0	20	0	114	75-134	0			
cis-1,3-Dichloropropene	22.5	1.0	20	0	112	70-130	0			
Dibromochloromethane	21.44	1.0	20	0	107	60-115	0			
Ethylbenzene	22.11	1.0	20	0	111	85-125	0			
m,p-Xylene	45.15	2.0	40	0	113	75-130	0			
Methylene chloride	23.07	5.0	20	0	115	75-140	0			
o-Xylene	22.06	1.0	20	0	110	80-125	0			
Styrene	22.77	1.0	20	0	114	83-137	0			
Tetrachloroethene	23.23	1.0	20	0	116	68-166	0			
Toluene	21.87	1.0	20	0	109	85-125	0			
trans-1,2-Dichloroethene	24.91	1.0	20	0	125	80-140	0			
trans-1,3-Dichloropropene	20.51	1.0	20	0	103	56-132	0			
Trichloroethene	23.76	1.0	20	0	119	84-130	0			
Vinyl chloride	15.53	1.0	20	0	77.6	50-136	0			
Xylenes, Total	67.21	3.0	60	0	112	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.8</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.97</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.8</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.81</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.54</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.7</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213950** Instrument ID **VMS5** Method: **SW8260B**

MSD		Sample ID: 1706567-05A MSD				Units: µg/L		Analysis Date: 6/15/2017 11:14 PM		
Client ID: ATR-MW78-G060817		Run ID: VMS5_170615A				SeqNo: 4483516		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	23.32	1.0	20	0	117	75-130	23.99	2.83	30	
1,1,2,2-Tetrachloroethane	20.51	1.0	20	0	103	75-130	20.75	1.16	30	
1,1,2-Trichloroethane	21.63	1.0	20	0	108	75-125	22.03	1.83	30	
1,1-Dichloroethane	22.44	1.0	20	0	112	75-133	23.98	6.64	30	
1,1-Dichloroethene	23.13	1.0	20	0	116	70-145	23.74	2.6	30	
1,2-Dichloroethane	20.91	1.0	20	0	105	78-125	21.75	3.94	30	
1,2-Dichloropropane	21.4	1.0	20	0	107	75-125	22.23	3.8	30	
2-Butanone	19.96	5.0	20	0	99.8	55-150	21.47	7.29	30	
2-Hexanone	20.71	5.0	20	0	104	60-135	20.7	0.0483	30	
4-Methyl-2-pentanone	30.37	1.0	20	0	152	77-178	30.71	1.11	30	
Acetone	20.51	10	20	0	103	60-160	23.5	13.6	30	
Benzene	22.16	1.0	20	0	111	85-125	22.62	2.05	30	
Bromodichloromethane	22.46	1.0	20	0	112	75-125	23.11	2.85	30	
Bromoform	20.76	1.0	20	0	104	60-125	21.29	2.52	30	
Bromomethane	10.76	1.0	20	0	53.8	30-185	10.25	4.85	30	
Carbon disulfide	21.63	1.0	20	0	108	60-165	23.1	6.57	30	
Carbon tetrachloride	23.57	1.0	20	0	118	65-140	25.36	7.32	30	
Chlorobenzene	20.56	1.0	20	0	103	80-120	21.03	2.26	30	
Chloroethane	16.11	1.0	20	0	80.6	50-140	16.31	1.23	30	
Chloroform	21.36	1.0	20	0	107	80-130	22.75	6.3	30	
Chloromethane	11.97	1.0	20	0	59.8	46-148	12.56	4.81	30	
cis-1,2-Dichloroethene	21.27	1.0	20	0	106	75-134	22.88	7.29	30	
cis-1,3-Dichloropropene	21.88	1.0	20	0	109	70-130	22.5	2.79	30	
Dibromochloromethane	20.96	1.0	20	0	105	60-115	21.44	2.26	30	
Ethylbenzene	21.71	1.0	20	0	109	85-125	22.11	1.83	30	
m,p-Xylene	43.86	2.0	40	0	110	75-130	45.15	2.9	30	
Methylene chloride	21.95	5.0	20	0	110	75-140	23.07	4.98	30	
o-Xylene	21.54	1.0	20	0	108	80-125	22.06	2.39	30	
Styrene	22.21	1.0	20	0	111	83-137	22.77	2.49	30	
Tetrachloroethene	22.71	1.0	20	0	114	68-166	23.23	2.26	30	
Toluene	21.32	1.0	20	0	107	85-125	21.87	2.55	30	
trans-1,2-Dichloroethene	22.68	1.0	20	0	113	80-140	24.91	9.37	30	
trans-1,3-Dichloropropene	20.36	1.0	20	0	102	56-132	20.51	0.734	30	
Trichloroethene	22.85	1.0	20	0	114	84-130	23.76	3.9	30	
Vinyl chloride	14.67	1.0	20	0	73.4	50-136	15.53	5.7	30	
Xylenes, Total	65.4	3.0	60	0	109	80-126	67.21	2.73	30	
Surr: 1,2-Dichloroethane-d4	20.65	0	20	0	103	75-120	20.8	0.724	30	
Surr: 4-Bromofluorobenzene	20.27	0	20	0	101	80-110	19.97	1.49	30	
Surr: Dibromofluoromethane	20.9	0	20	0	104	85-115	20.81	0.432	30	
Surr: Toluene-d8	19.69	0	20	0	98.4	85-110	19.54	0.765	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
Work Order: 1706567
Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213950** Instrument ID **VMS5** Method: **SW8260B**

The following samples were analyzed in this batch:

1706567-05A	1706567-35A	1706567-36A
1706567-37A	1706567-38A	1706567-39A
1706567-40A	1706567-41A	1706567-42A
1706567-43A	1706567-44A	1706567-45A
1706567-46A	1706567-47A	1706567-48A
1706567-49A	1706567-50A	1706567-51A
1706567-52A	1706567-53A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1
QC Page: 18 of 41

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213997** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: VBLKW2-170615-R213997				Units: µg/L		Analysis Date: 6/16/2017 02:13 AM		
Client ID:		Run ID: VMS5_170615B		SeqNo: 4484177		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,2-Dichloropropane	ND	1.0								
2-Butanone	ND	5.0								
2-Hexanone	ND	5.0								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	10								
Benzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	1.0								
Carbon disulfide	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	1.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-Dichloroethene	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylene chloride	ND	5.0								
o-Xylene	ND	1.0								
Styrene	ND	1.0								
Tetrachloroethene	ND	1.0								
Toluene	ND	1.0								
trans-1,2-Dichloroethene	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	3.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.87</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.99</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>95</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.88</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.2</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213997** Instrument ID **VMS5** Method: **SW8260B**

LCS		Sample ID: VLCSW2-170615-R213997				Units: µg/L		Analysis Date: 6/16/2017 01:22 AM		
Client ID:		Run ID: VMS5_170615B			SeqNo: 4484176		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	20.87	1.0	20	0	104	75-130	0			
1,1,2,2-Tetrachloroethane	21.66	1.0	20	0	108	75-130	0			
1,1,2-Trichloroethane	21.13	1.0	20	0	106	75-125	0			
1,1-Dichloroethane	21.6	1.0	20	0	108	75-133	0			
1,1-Dichloroethene	21.42	1.0	20	0	107	70-145	0			
1,2-Dichloroethane	20.33	1.0	20	0	102	78-125	0			
1,2-Dichloropropane	20.48	1.0	20	0	102	75-125	0			
2-Butanone	20.9	5.0	20	0	104	55-150	0			
2-Hexanone	20.86	5.0	20	0	104	60-135	0			
4-Methyl-2-pentanone	31.25	1.0	20	0	156	77-178	0			
Acetone	21.15	10	20	0	106	60-160	0			
Benzene	20.36	1.0	20	0	102	85-125	0			
Bromodichloromethane	21.35	1.0	20	0	107	75-125	0			
Bromoform	21.34	1.0	20	0	107	60-125	0			
Bromomethane	11.26	1.0	20	0	56.3	30-185	0			
Carbon disulfide	19.98	1.0	20	0	99.9	60-165	0			
Carbon tetrachloride	21.68	1.0	20	0	108	65-140	0			
Chlorobenzene	19.82	1.0	20	0	99.1	80-120	0			
Chloroethane	14.88	1.0	20	0	74.4	50-140	0			
Chloroform	20.64	1.0	20	0	103	80-130	0			
Chloromethane	11.31	1.0	20	0	56.6	46-148	0			
cis-1,2-Dichloroethene	20.17	1.0	20	0	101	75-134	0			
cis-1,3-Dichloropropene	21.14	1.0	20	0	106	70-130	0			
Dibromochloromethane	20.43	1.0	20	0	102	60-115	0			
Ethylbenzene	20.24	1.0	20	0	101	85-125	0			
m,p-Xylene	41.19	2.0	40	0	103	75-130	0			
Methylene chloride	21.04	5.0	20	0	105	75-140	0			
o-Xylene	20.37	1.0	20	0	102	80-125	0			
Styrene	21.16	1.0	20	0	106	83-137	0			
Tetrachloroethene	20.39	1.0	20	0	102	68-166	0			
Toluene	20.07	1.0	20	0	100	85-125	0			
trans-1,2-Dichloroethene	21.34	1.0	20	0	107	80-140	0			
trans-1,3-Dichloropropene	20.44	1.0	20	0	102	56-132	0			
Trichloroethene	20.77	1.0	20	0	104	84-130	0			
Vinyl chloride	13.7	1.0	20	0	68.5	50-136	0			
Xylenes, Total	61.56	3.0	60	0	103	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.81</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.29</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>19.96</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.8</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.43</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.2</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213997** Instrument ID **VMS5** Method: **SW8260B**

MS		Sample ID: 1706567-17A MS				Units: µg/L		Analysis Date: 6/16/2017 11:10 AM		
Client ID: ATR-MW67-G060817		Run ID: VMS5_170615B		SeqNo: 4484197		Prep Date:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	231	10	200	0	116	75-130	0			
1,1,2,2-Tetrachloroethane	203.1	10	200	0	102	75-130	0			
1,1,2-Trichloroethane	217.6	10	200	0	109	75-125	0			
1,1-Dichloroethane	228.5	10	200	0	114	75-133	0			
1,1-Dichloroethene	232.9	10	200	0	116	70-145	0			
1,2-Dichloroethane	216.6	10	200	0	108	78-125	0			
1,2-Dichloropropane	213.2	10	200	0	107	75-125	0			
2-Butanone	218.1	50	200	6.62	106	55-150	0			
2-Hexanone	212.6	50	200	0	106	60-135	0			
4-Methyl-2-pentanone	309.4	10	200	0	155	77-178	0			
Acetone	255	100	200	43.36	106	60-160	0			
Benzene	222.2	10	200	0	111	85-125	0			
Bromodichloromethane	224.6	10	200	0	112	75-125	0			
Bromoform	210.1	10	200	0	105	60-125	0			
Bromomethane	35	10	200	0	17.5	30-185	0			S
Carbon disulfide	224.7	10	200	0	112	60-165	0			
Carbon tetrachloride	233.3	10	200	0	117	65-140	0			
Chlorobenzene	203.6	10	200	0	102	80-120	0			
Chloroethane	169.2	10	200	0	84.6	50-140	0			
Chloroform	216.6	10	200	0	108	80-130	0			
Chloromethane	132.8	10	200	0	66.4	46-148	0			
cis-1,2-Dichloroethene	227.3	10	200	16.45	105	75-134	0			
cis-1,3-Dichloropropene	210.2	10	200	0	105	70-130	0			
Dibromochloromethane	210.1	10	200	0	105	60-115	0			
Ethylbenzene	209.8	10	200	0	105	85-125	0			
m,p-Xylene	429.1	20	400	0	107	75-130	0			
Methylene chloride	224.9	50	200	0	112	75-140	0			
o-Xylene	210.8	10	200	0	105	80-125	0			
Styrene	220.4	10	200	0	110	83-137	0			
Tetrachloroethene	223.9	10	200	0	112	68-166	0			
Toluene	209	10	200	0.48	104	85-125	0			
trans-1,2-Dichloroethene	227.8	10	200	0	114	80-140	0			
trans-1,3-Dichloropropene	191.6	10	200	0	95.8	56-132	0			
Trichloroethene	217.9	10	200	0	109	84-130	0			
Vinyl chloride	228.7	10	200	56.8	86	50-136	0			
Xylenes, Total	639.9	30	600	0	107	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>208.8</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>104</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>204.4</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>102</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>210.3</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>105</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>196.8</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>98.4</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213997** Instrument ID **VMS5** Method: **SW8260B**

MSD		Sample ID: 1706567-17A MSD				Units: µg/L		Analysis Date: 6/16/2017 11:36 AM		
Client ID: ATR-MW67-G060817		Run ID: VMS5_170615B				SeqNo: 4484198		Prep Date:		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	225.5	10	200	0	113	75-130	231	2.41	30	
1,1,2,2-Tetrachloroethane	204.7	10	200	0	102	75-130	203.1	0.785	30	
1,1,2-Trichloroethane	210.2	10	200	0	105	75-125	217.6	3.46	30	
1,1-Dichloroethane	223.1	10	200	0	112	75-133	228.5	2.39	30	
1,1-Dichloroethene	236.9	10	200	0	118	70-145	232.9	1.7	30	
1,2-Dichloroethane	211.3	10	200	0	106	78-125	216.6	2.48	30	
1,2-Dichloropropane	209.1	10	200	0	105	75-125	213.2	1.94	30	
2-Butanone	210.9	50	200	6.62	102	55-150	218.1	3.36	30	
2-Hexanone	202.5	50	200	0	101	60-135	212.6	4.87	30	
4-Methyl-2-pentanone	299.2	10	200	0	150	77-178	309.4	3.35	30	
Acetone	257.1	100	200	43.36	107	60-160	255	0.82	30	
Benzene	215.5	10	200	0	108	85-125	222.2	3.06	30	
Bromodichloromethane	221.6	10	200	0	111	75-125	224.6	1.34	30	
Bromoform	205.5	10	200	0	103	60-125	210.1	2.21	30	
Bromomethane	51.1	10	200	0	25.6	30-185	35	37.4	30	SR
Carbon disulfide	226.9	10	200	0	113	60-165	224.7	0.974	30	
Carbon tetrachloride	231	10	200	0	116	65-140	233.3	0.991	30	
Chlorobenzene	199.6	10	200	0	99.8	80-120	203.6	1.98	30	
Chloroethane	176.9	10	200	0	88.4	50-140	169.2	4.45	30	
Chloroform	214.5	10	200	0	107	80-130	216.6	0.974	30	
Chloromethane	133.9	10	200	0	67	46-148	132.8	0.825	30	
cis-1,2-Dichloroethene	225.3	10	200	16.45	104	75-134	227.3	0.884	30	
cis-1,3-Dichloropropene	203.6	10	200	0	102	70-130	210.2	3.19	30	
Dibromochloromethane	206.4	10	200	0	103	60-115	210.1	1.78	30	
Ethylbenzene	208.8	10	200	0	104	85-125	209.8	0.478	30	
m,p-Xylene	421.6	20	400	0	105	75-130	429.1	1.76	30	
Methylene chloride	224	50	200	0	112	75-140	224.9	0.401	30	
o-Xylene	210.1	10	200	0	105	80-125	210.8	0.333	30	
Styrene	216	10	200	0	108	83-137	220.4	2.02	30	
Tetrachloroethene	216.2	10	200	0	108	68-166	223.9	3.5	30	
Toluene	206.1	10	200	0.48	103	85-125	209	1.4	30	
trans-1,2-Dichloroethene	240.2	10	200	0	120	80-140	227.8	5.3	30	
trans-1,3-Dichloropropene	192.7	10	200	0	96.4	56-132	191.6	0.572	30	
Trichloroethene	222.6	10	200	0	111	84-130	217.9	2.13	30	
Vinyl chloride	226.6	10	200	56.8	84.9	50-136	228.7	0.922	30	
Xylenes, Total	631.7	30	600	0	105	80-126	639.9	1.29	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>204</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>102</i>	<i>75-120</i>	<i>208.8</i>	<i>2.33</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>198.6</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>99.3</i>	<i>80-110</i>	<i>204.4</i>	<i>2.88</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>209.4</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>105</i>	<i>85-115</i>	<i>210.3</i>	<i>0.429</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>194.2</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>97.1</i>	<i>85-110</i>	<i>196.8</i>	<i>1.33</i>	<i>30</i>	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
Work Order: 1706567
Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213997** Instrument ID **VMS5** Method: **SW8260B**

The following samples were analyzed in this batch:

1706567-01A	1706567-06A	1706567-08A
1706567-15A	1706567-16A	1706567-17A
1706567-18A	1706567-19A	1706567-21A
1706567-27A	1706567-28A	1706567-30A
1706567-31A	1706567-32A	1706567-33A
1706567-54A	1706567-55A	1706567-58A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214069a** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: VBLKW1-170616-R214069a				Units: µg/L		Analysis Date: 6/16/2017 05:12 PM		
Client ID:		Run ID: VMS5_170616A		SeqNo: 4486355		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloroethane	ND	1.0								
1,2-Dichloropropane	ND	1.0								
2-Butanone	ND	5.0								
2-Hexanone	ND	5.0								
4-Methyl-2-pentanone	ND	1.0								
Acetone	ND	10								
Benzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	1.0								
Carbon disulfide	ND	1.0								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	1.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-Dichloroethene	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
Methylene chloride	ND	5.0								
o-Xylene	ND	1.0								
Styrene	ND	1.0								
Tetrachloroethene	ND	1.0								
Toluene	ND	1.0								
trans-1,2-Dichloroethene	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
Trichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	3.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.28</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.58</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>92.9</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.62</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>103</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>18.98</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>94.9</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214069a** Instrument ID **VMS5** Method: **SW8260B**

LCS		Sample ID: VLCSW1-170616-R214069a				Units: µg/L		Analysis Date: 6/16/2017 04:20 PM		
Client ID:		Run ID: VMS5_170616A			SeqNo: 4486344		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.42	1.0	20	0	107	75-130	0			
1,1,2,2-Tetrachloroethane	20.01	1.0	20	0	100	75-130	0			
1,1,2-Trichloroethane	19.7	1.0	20	0	98.5	75-125	0			
1,1-Dichloroethane	21.76	1.0	20	0	109	75-133	0			
1,1-Dichloroethene	23.12	1.0	20	0	116	70-145	0			
1,2-Dichloroethane	19.98	1.0	20	0	99.9	78-125	0			
1,2-Dichloropropane	19.59	1.0	20	0	98	75-125	0			
2-Butanone	18.96	5.0	20	0	94.8	55-150	0			
2-Hexanone	19.63	5.0	20	0	98.2	60-135	0			
4-Methyl-2-pentanone	29.47	1.0	20	0	147	77-178	0			
Acetone	17.81	10	20	0	89	60-160	0			
Benzene	20.81	1.0	20	0	104	85-125	0			
Bromodichloromethane	20.98	1.0	20	0	105	75-125	0			
Bromoform	19.74	1.0	20	0	98.7	60-125	0			
Bromomethane	10.47	1.0	20	0	52.4	30-185	0			
Carbon disulfide	22.77	1.0	20	0	114	60-165	0			
Carbon tetrachloride	21.92	1.0	20	0	110	65-140	0			
Chlorobenzene	19.2	1.0	20	0	96	80-120	0			
Chloroethane	16.68	1.0	20	0	83.4	50-140	0			
Chloroform	20.21	1.0	20	0	101	80-130	0			
Chloromethane	14.77	1.0	20	0	73.8	46-148	0			
cis-1,2-Dichloroethene	20.95	1.0	20	0	105	75-134	0			
cis-1,3-Dichloropropene	21.34	1.0	20	0	107	70-130	0			
Dibromochloromethane	19.22	1.0	20	0	96.1	60-115	0			
Ethylbenzene	19.75	1.0	20	0	98.8	85-125	0			
m,p-Xylene	40.05	2.0	40	0	100	75-130	0			
Methylene chloride	21.11	5.0	20	0	106	75-140	0			
o-Xylene	19.81	1.0	20	0	99	80-125	0			
Styrene	20.35	1.0	20	0	102	83-137	0			
Tetrachloroethene	20.7	1.0	20	0	104	68-166	0			
Toluene	20	1.0	20	0	100	85-125	0			
trans-1,2-Dichloroethene	22.46	1.0	20	0	112	80-140	0			
trans-1,3-Dichloropropene	19.63	1.0	20	0	98.2	56-132	0			
Trichloroethene	21.26	1.0	20	0	106	84-130	0			
Vinyl chloride	16.86	1.0	20	0	84.3	50-136	0			
Xylenes, Total	59.86	3.0	60	0	99.8	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.79</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.25</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.12</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.76</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98.8</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214069a** Instrument ID **VMS5** Method: **SW8260B**

MS		Sample ID: 1706644-09A MS				Units: µg/L		Analysis Date: 6/17/2017 01:44 AM		
Client ID:		Run ID: VMS5_170616A			SeqNo: 4486367		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	21.82	1.0	20	0	109	75-130	0			
1,1,2,2-Tetrachloroethane	18.7	1.0	20	0	93.5	75-130	0			
1,1,2-Trichloroethane	19.43	1.0	20	0	97.2	75-125	0			
1,1-Dichloroethane	21.77	1.0	20	0	109	75-133	0			
1,1-Dichloroethene	23.61	1.0	20	0	118	70-145	0			
1,2-Dichloroethane	20.17	1.0	20	0	101	78-125	0			
1,2-Dichloropropane	19.47	1.0	20	0	97.4	75-125	0			
2-Butanone	21.27	5.0	20	0	106	55-150	0			
2-Hexanone	19.95	5.0	20	0	99.8	60-135	0			
4-Methyl-2-pentanone	28.33	1.0	20	0	142	77-178	0			
Acetone	21.34	10	20	0	107	60-160	0			
Benzene	20.68	1.0	20	0	103	85-125	0			
Bromodichloromethane	20.68	1.0	20	0	103	75-125	0			
Bromoform	19.1	1.0	20	0	95.5	60-125	0			
Bromomethane	8.02	1.0	20	0	40.1	30-185	0			
Carbon disulfide	23.44	1.0	20	0	117	60-165	0			
Carbon tetrachloride	23.02	1.0	20	0	115	65-140	0			
Chlorobenzene	18.81	1.0	20	0	94	80-120	0			
Chloroethane	17.68	1.0	20	0	88.4	50-140	0			
Chloroform	19.96	1.0	20	0	99.8	80-130	0			
Chloromethane	15.08	1.0	20	0	75.4	46-148	0			
cis-1,2-Dichloroethene	20.03	1.0	20	0	100	75-134	0			
cis-1,3-Dichloropropene	20.26	1.0	20	0	101	70-130	0			
Dibromochloromethane	18.91	1.0	20	0	94.6	60-115	0			
Ethylbenzene	19.81	1.0	20	0	99	85-125	0			
m,p-Xylene	40.53	2.0	40	0	101	75-130	0			
Methylene chloride	21.63	5.0	20	0	108	75-140	0			
o-Xylene	19.6	1.0	20	0	98	80-125	0			
Styrene	19.87	1.0	20	0	99.4	83-137	0			
Tetrachloroethene	20.69	1.0	20	0	103	68-166	0			
Toluene	19.66	1.0	20	0	98.3	85-125	0			
trans-1,2-Dichloroethene	22.53	1.0	20	0	113	80-140	0			
trans-1,3-Dichloropropene	18.26	1.0	20	0	91.3	56-132	0			
Trichloroethene	21.19	1.0	20	0	106	84-130	0			
Vinyl chloride	18.08	1.0	20	0	90.4	50-136	0			
Xylenes, Total	60.13	3.0	60	0	100	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.27</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.15</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.79</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.55</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.8</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214069a** Instrument ID **VMS5** Method: **SW8260B**

MSD		Sample ID: 1706644-09A MSD				Units: µg/L		Analysis Date: 6/17/2017 02:10 AM		
Client ID:		Run ID: VMS5_170616A			SeqNo: 4486368		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	22.92	1.0	20	0	115	75-130	21.82	4.92	30	
1,1,2,2-Tetrachloroethane	19.98	1.0	20	0	99.9	75-130	18.7	6.62	30	
1,1,2-Trichloroethane	20.35	1.0	20	0	102	75-125	19.43	4.63	30	
1,1-Dichloroethane	22.43	1.0	20	0	112	75-133	21.77	2.99	30	
1,1-Dichloroethene	24.21	1.0	20	0	121	70-145	23.61	2.51	30	
1,2-Dichloroethane	20.62	1.0	20	0	103	78-125	20.17	2.21	30	
1,2-Dichloropropane	20.78	1.0	20	0	104	75-125	19.47	6.51	30	
2-Butanone	21.44	5.0	20	0	107	55-150	21.27	0.796	30	
2-Hexanone	21.28	5.0	20	0	106	60-135	19.95	6.45	30	
4-Methyl-2-pentanone	31.01	1.0	20	0	155	77-178	28.33	9.03	30	
Acetone	22.99	10	20	0	115	60-160	21.34	7.44	30	
Benzene	21.84	1.0	20	0	109	85-125	20.68	5.46	30	
Bromodichloromethane	21.32	1.0	20	0	107	75-125	20.68	3.05	30	
Bromoform	20.12	1.0	20	0	101	60-125	19.1	5.2	30	
Bromomethane	9.91	1.0	20	0	49.6	30-185	8.02	21.1	30	
Carbon disulfide	24.16	1.0	20	0	121	60-165	23.44	3.03	30	
Carbon tetrachloride	23.9	1.0	20	0	120	65-140	23.02	3.75	30	
Chlorobenzene	20.04	1.0	20	0	100	80-120	18.81	6.33	30	
Chloroethane	19	1.0	20	0	95	50-140	17.68	7.2	30	
Chloroform	21.26	1.0	20	0	106	80-130	19.96	6.31	30	
Chloromethane	15.38	1.0	20	0	76.9	46-148	15.08	1.97	30	
cis-1,2-Dichloroethene	21.42	1.0	20	0	107	75-134	20.03	6.71	30	
cis-1,3-Dichloropropene	21.18	1.0	20	0	106	70-130	20.26	4.44	30	
Dibromochloromethane	19.74	1.0	20	0	98.7	60-115	18.91	4.29	30	
Ethylbenzene	20.94	1.0	20	0	105	85-125	19.81	5.55	30	
m,p-Xylene	42.09	2.0	40	0	105	75-130	40.53	3.78	30	
Methylene chloride	22.37	5.0	20	0	112	75-140	21.63	3.36	30	
o-Xylene	20.65	1.0	20	0	103	80-125	19.6	5.22	30	
Styrene	21.49	1.0	20	0	107	83-137	19.87	7.83	30	
Tetrachloroethene	21.9	1.0	20	0	110	68-166	20.69	5.68	30	
Toluene	20.61	1.0	20	0	103	85-125	19.66	4.72	30	
trans-1,2-Dichloroethene	22.97	1.0	20	0	115	80-140	22.53	1.93	30	
trans-1,3-Dichloropropene	19.22	1.0	20	0	96.1	56-132	18.26	5.12	30	
Trichloroethene	22.43	1.0	20	0	112	84-130	21.19	5.69	30	
Vinyl chloride	18.87	1.0	20	0	94.4	50-136	18.08	4.28	30	
Xylenes, Total	62.74	3.0	60	0	105	80-126	60.13	4.25	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.22</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>75-120</i>	<i>20.27</i>	<i>0.247</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.32</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>80-110</i>	<i>20.15</i>	<i>0.84</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>20.51</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>103</i>	<i>85-115</i>	<i>20.79</i>	<i>1.36</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>19.46</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.3</i>	<i>85-110</i>	<i>19.55</i>	<i>0.461</i>	<i>30</i>	

The following samples were analyzed in this batch:

1706567-18A	1706567-35A	1706567-38A
1706567-48A	1706567-49A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213710** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK		Sample ID: MBLK-R213710				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID:		Run ID: LACHAT2_170612C				SeqNo: 4475827		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite ND 0.020

LCS		Sample ID: LCS-R213710				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID:		Run ID: LACHAT2_170612C				SeqNo: 4475828		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 5.22 0.020 5 0 104 80-120 0

MS		Sample ID: 1706488-07D MS				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID:		Run ID: LACHAT2_170612C				SeqNo: 4475832		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 4.737 0.020 5 -0.1001 96.7 75-125 0

MS		Sample ID: 1706567-04B MS				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-MW77-G060817		Run ID: LACHAT2_170612C				SeqNo: 4475847		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 4.758 0.020 5 -0.08403 96.8 75-125 0

MSD		Sample ID: 1706488-07D MSD				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID:		Run ID: LACHAT2_170612C				SeqNo: 4475833		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 4.745 0.020 5 -0.1001 96.9 75-125 4.737 0.169 20

MSD		Sample ID: 1706567-04B MSD				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-MW77-G060817		Run ID: LACHAT2_170612C				SeqNo: 4475848		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 4.732 0.020 5 -0.08403 96.3 75-125 4.758 0.548 20

The following samples were analyzed in this batch:

1706567-01B	1706567-02B	1706567-04B
1706567-05B	1706567-06B	1706567-07B
1706567-09B	1706567-11B	1706567-12B
1706567-13B	1706567-14B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213711** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK		Sample ID: MBLK-R213711				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID:		Run ID: LACHAT2_170612D				SeqNo: 4475982		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite ND 0.020

LCS		Sample ID: LCS-R213711				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID:		Run ID: LACHAT2_170612D				SeqNo: 4475983		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 5.126 0.020 5 0 103 80-120 0

MS		Sample ID: 1706567-16B MS				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-MW62(36)-G060717		Run ID: LACHAT2_170612D				SeqNo: 4475986		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 3.643 0.020 5 -0.3682 80.2 75-125 0

MS		Sample ID: 1706567-29B MS				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-MW59(29)-G060717R		Run ID: LACHAT2_170612D				SeqNo: 4476004		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 4.171 0.020 5 -0.2018 87.5 75-125 0

MSD		Sample ID: 1706567-16B MSD				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-MW62(36)-G060717		Run ID: LACHAT2_170612D				SeqNo: 4475987		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 3.657 0.020 5 -0.3682 80.5 75-125 3.643 0.384 20

MSD		Sample ID: 1706567-29B MSD				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-MW59(29)-G060717R		Run ID: LACHAT2_170612D				SeqNo: 4476005		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 4.171 0.020 5 -0.2018 87.5 75-125 4.171 0 20

The following samples were analyzed in this batch:

1706567-15B	1706567-16B	1706567-17B
1706567-18B	1706567-19B	1706567-20B
1706567-21B	1706567-22B	1706567-23B
1706567-24B	1706567-25B	1706567-27B
1706567-28B	1706567-29B	1706567-30B
1706567-31B	1706567-32B	1706567-33B
1706567-35B	1706567-36B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213713** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK		Sample ID: MBLK-R213713				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID:		Run ID: LACHAT2_170612E				SeqNo: 4476060		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite ND 0.020

LCS		Sample ID: LCS-R213713				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID:		Run ID: LACHAT2_170612E				SeqNo: 4476061		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 5.322 0.020 5 0 106 80-120 0

MS		Sample ID: 1706567-38B MS				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-OW5(44)-G060617		Run ID: LACHAT2_170612E				SeqNo: 4476063		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 2.435 0.020 5 -0.778 64.3 75-125 0 S

MS		Sample ID: 1706567-52B MS				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-MW26(28.8)-G060617		Run ID: LACHAT2_170612E				SeqNo: 4476080		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 3.208 0.020 5 -0.5143 74.4 75-125 0 S

MSD		Sample ID: 1706567-38B MSD				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-OW5(44)-G060617		Run ID: LACHAT2_170612E				SeqNo: 4476064		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 2.385 0.020 5 -0.778 63.3 75-125 2.435 2.07 20 S

MSD		Sample ID: 1706567-52B MSD				Units: mg/L		Analysis Date: 6/12/2017 11:20 AM			
Client ID: ATR-MW26(28.8)-G060617		Run ID: LACHAT2_170612E				SeqNo: 4476081		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Nitrogen, Nitrate-Nitrite 3.173 0.020 5 -0.5143 73.7 75-125 3.208 1.1 20 S

The following samples were analyzed in this batch:

1706567-38B	1706567-39B	1706567-40B
1706567-41B	1706567-42B	1706567-44B
1706567-45B	1706567-46B	1706567-47B
1706567-48B	1706567-49B	1706567-50B
1706567-51B	1706567-52B	1706567-53B
1706567-58B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213790** Instrument ID **Titrator 1** Method: **A2320 B-97**

MBLK		Sample ID: WBLKW1-170613-R213790				Units: mg/L		Analysis Date: 6/13/2017 01:15 PM		
Client ID:		Run ID: TITRATOR 1_170613B				SeqNo: 4477966		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	ND	10								
Alkalinity, Total (as CaCO3)	ND	10								

LCS		Sample ID: WLCSW1-170613-R213790				Units: mg/L		Analysis Date: 6/13/2017 01:15 PM		
Client ID:		Run ID: TITRATOR 1_170613B				SeqNo: 4477967		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (as CaCO3)	1009	10	1000	0	101	86-104	0			

DUP		Sample ID: 1706647-01A DUP				Units: mg/L		Analysis Date: 6/13/2017 01:15 PM		
Client ID:		Run ID: TITRATOR 1_170613B				SeqNo: 4477971		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	1146	10	0	0	0		1142	0.351	20	
Alkalinity, Total (as CaCO3)	1146	10	0	0	0		1142	0.351	20	

DUP		Sample ID: 1706567-12C DUP				Units: mg/L		Analysis Date: 6/13/2017 01:15 PM		
Client ID: ATR-MW20(51)-G060717		Run ID: TITRATOR 1_170613B				SeqNo: 4479263		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	276.4	10	0	0	0		268.1	3.06	20	
Alkalinity, Total (as CaCO3)	276.4	10	0	0	0		268.1	3.06	20	

The following samples were analyzed in this batch:

1706567-01C	1706567-02C	1706567-04C
1706567-05C	1706567-06C	1706567-07C
1706567-09C	1706567-11C	1706567-12C
1706567-13C	1706567-14C	1706567-15C
1706567-16C	1706567-17C	1706567-18C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213837** Instrument ID **Titrator 1** Method: **A2320 B-97**

MBLK		Sample ID: WBLKW2-170613-R213837				Units: mg/L		Analysis Date: 6/13/2017 04:50 PM		
Client ID:		Run ID: TITRATOR 1_170613C				SeqNo: 4479219		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	ND	10								
Alkalinity, Total (as CaCO3)	ND	10								

LCS		Sample ID: WLCSW2-170613-R213837				Units: mg/L		Analysis Date: 6/13/2017 04:50 PM		
Client ID:		Run ID: TITRATOR 1_170613C				SeqNo: 4479220		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (as CaCO3)	1001	10	1000		0	100	86-104	0		

DUP		Sample ID: 1706567-21C DUP				Units: mg/L		Analysis Date: 6/13/2017 04:50 PM		
Client ID: ATR-OW3(55)-G060717		Run ID: TITRATOR 1_170613C				SeqNo: 4479224		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	610.1	10	0		0	0	608.8	0.21	20	
Alkalinity, Total (as CaCO3)	610.1	10	0		0	0	608.8	0.21	20	

DUP		Sample ID: 1706567-32C DUP				Units: mg/L		Analysis Date: 6/13/2017 04:50 PM		
Client ID: ATR-PM2-G060717		Run ID: TITRATOR 1_170613C				SeqNo: 4479235		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	446.5	10	0		0	0	445.2	0.283	20	
Alkalinity, Total (as CaCO3)	446.5	10	0		0	0	445.2	0.283	20	

The following samples were analyzed in this batch:

1706567-19C	1706567-20C	1706567-21C
1706567-22C	1706567-23C	1706567-24C
1706567-25C	1706567-27C	1706567-28C
1706567-29C	1706567-30C	1706567-31C
1706567-32C	1706567-33C	1706567-35C
1706567-36C	1706567-38C	1706567-39C
1706567-40C	1706567-41C	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213858B** Instrument ID **TOC3** Method: **SW9060A**

MBLK		Sample ID: MBLK-R213858B				Units: mg/L		Analysis Date: 6/12/2017 12:33 PM		
Client ID:		Run ID: TOC3_170612A				SeqNo: 4479723		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	ND	0.50								

LCS		Sample ID: LCS-R213858B				Units: mg/L		Analysis Date: 6/12/2017 12:33 PM		
Client ID:		Run ID: TOC3_170612A				SeqNo: 4479724		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	5.236	0.50	5	0	105	91-110		0		

The following samples were analyzed in this batch:

1706567-01B	1706567-02B	1706567-04B
1706567-05B	1706567-06B	1706567-07B
1706567-09B	1706567-11B	1706567-12B
1706567-13B	1706567-14B	

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R213894** Instrument ID **Titrator 1** Method: **A2320 B-97**

MBLK		Sample ID: WBLKW1-170614-R213894				Units: mg/L		Analysis Date: 6/14/2017 02:45 PM		
Client ID:		Run ID: TITRATOR 1_170614A				SeqNo: 4480496		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	ND	10								
Alkalinity, Total (as CaCO3)	ND	10								

LCS		Sample ID: WLCSW1-170614-R213894				Units: mg/L		Analysis Date: 6/14/2017 02:45 PM		
Client ID:		Run ID: TITRATOR 1_170614A				SeqNo: 4480497		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (as CaCO3)	953.7	10	1000	0	95.4	86-104	0			

DUP		Sample ID: 1706567-46C DUP				Units: mg/L		Analysis Date: 6/14/2017 02:45 PM		
Client ID: ATR-MW25(16.4)-G060617R		Run ID: TITRATOR 1_170614A				SeqNo: 4480502		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	439.3	10	0	0	0		431.2	1.87	20	
Alkalinity, Total (as CaCO3)	439.3	10	0	0	0		431.2	1.87	20	

DUP		Sample ID: 1706567-58C DUP				Units: mg/L		Analysis Date: 6/14/2017 02:45 PM		
Client ID: ATR-MW12-G060717		Run ID: TITRATOR 1_170614A				SeqNo: 4480511		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (as CaCO3)	392.9	10	0	0	0		397.8	1.26	20	
Alkalinity, Total (as CaCO3)	392.9	10	0	0	0		397.8	1.26	20	

The following samples were analyzed in this batch:

1706567-42C	1706567-44C	1706567-45C
1706567-46C	1706567-47C	1706567-48C
1706567-49C	1706567-50C	1706567-51C
1706567-52C	1706567-53C	1706567-58C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214029B** Instrument ID **TOC3** Method: **SW9060A**

MBLK		Sample ID: MBLK-R214029B				Units: mg/L		Analysis Date: 6/15/2017 11:32 AM			
Client ID:		Run ID: TOC3_170615A				SeqNo: 4484074		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Organic Carbon, Total	ND	0.50									

LCS		Sample ID: LCS-R214029B				Units: mg/L		Analysis Date: 6/15/2017 11:32 AM			
Client ID:		Run ID: TOC3_170615A				SeqNo: 4484075		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Organic Carbon, Total	5.196	0.50	5	0	104	91-110	0				

The following samples were analyzed in this batch:

1706567-04B	1706567-09B	1706567-12B
1706567-13B	1706567-14B	1706567-15B
1706567-16B	1706567-17B	1706567-18B
1706567-19B	1706567-20B	1706567-21B
1706567-22B	1706567-23B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214094B** Instrument ID **TOC3** Method: **SW9060A**

MBLK		Sample ID: MBLK-R214094B				Units: mg/L		Analysis Date: 6/16/2017 03:35 PM			
Client ID:		Run ID: TOC3_170616A				SeqNo: 4485608		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Organic Carbon, Total	ND	0.50									

LCS		Sample ID: LCS-R214094B				Units: mg/L		Analysis Date: 6/16/2017 03:35 PM			
Client ID:		Run ID: TOC3_170616A				SeqNo: 4485609		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Organic Carbon, Total	5.135	0.50	5	0	103	91-110		0			

The following samples were analyzed in this batch:

1706567-17B	1706567-18B	1706567-19B
1706567-22B	1706567-24B	1706567-25B
1706567-27B	1706567-28B	1706567-29B
1706567-30B	1706567-31B	1706567-32B
1706567-33B	1706567-35B	1706567-36B
1706567-38B	1706567-39B	1706567-40B

Client: AMEC Foster Wheeler
Work Order: 1706567
Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214143A** Instrument ID **TOC3** Method: **SW9060A**

MBLK		Sample ID: MBLK-R214143A				Units: mg/L		Analysis Date: 6/18/2017 12:15 PM		
Client ID:		Run ID: TOC3_170618A			SeqNo: 4487080		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	ND	0.50								

LCS		Sample ID: LCS-R214143A				Units: mg/L		Analysis Date: 6/18/2017 12:15 PM		
Client ID:		Run ID: TOC3_170618A			SeqNo: 4487081		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	5.071	0.50	5	0	101	91-110		0		

The following samples were analyzed in this batch:

1706567-25B	1706567-36B	1706567-40B
1706567-41B	1706567-42B	1706567-44B
1706567-45B	1706567-46B	1706567-47B
1706567-48B	1706567-49B	1706567-50B
1706567-51B	1706567-52B	1706567-53B
1706567-58B		

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214234** Instrument ID **IC4** Method: **SW9056A**

MBLK		Sample ID: CCB/MBLK-R214234				Units: mg/L		Analysis Date: 6/19/2017 07:53 PM			
Client ID:		Run ID: IC4_170619B				SeqNo: 4489638		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	0.333	1.0								J	
Sulfate	0.4018	1.0								J	

LCS		Sample ID: LCS-R214234				Units: mg/L		Analysis Date: 6/19/2017 08:13 PM			
Client ID:		Run ID: IC4_170619B				SeqNo: 4489639		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	9.293	1.0	10	0	92.9	88-110	0				
Sulfate	9.255	1.0	10	0	92.5	85-110	0				

MS		Sample ID: 17051572-21A MS				Units: mg/L		Analysis Date: 6/19/2017 10:35 PM			
Client ID:		Run ID: IC4_170619B				SeqNo: 4489646		Prep Date:		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	498	50	500	28.31	93.9	75-125	0				
Sulfate	737.1	50	500	220.1	103	75-125	0				

MSD		Sample ID: 17051572-21A MSD				Units: mg/L		Analysis Date: 6/19/2017 10:55 PM			
Client ID:		Run ID: IC4_170619B				SeqNo: 4489647		Prep Date:		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chloride	499.5	50	500	28.31	94.2	75-125	498	0.299	20		
Sulfate	734.6	50	500	220.1	103	75-125	737.1	0.34	20		

The following samples were analyzed in this batch:

1706567-01C	1706567-02C	1706567-04C
1706567-05C	1706567-06C	1706567-07C
1706567-09C	1706567-11C	1706567-12C
1706567-13C	1706567-14C	1706567-15C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214355** Instrument ID **IC4** Method: **SW9056A**

MBLK		Sample ID: CCB/MBLK-R214355				Units: mg/L		Analysis Date: 6/20/2017 10:58 PM		
Client ID:		Run ID: IC4_170620B				SeqNo: 4493107		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.3702	1.0								J
Sulfate	ND	1.0								

LCS		Sample ID: LCS-R214355				Units: mg/L		Analysis Date: 6/20/2017 11:18 PM		
Client ID:		Run ID: IC4_170620B				SeqNo: 4493108		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.498	1.0	10	0	95	88-110	0			
Sulfate	9.57	1.0	10	0	95.7	85-110	0			

MS		Sample ID: 1706567-29C MS				Units: mg/L		Analysis Date: 6/21/2017 09:25 AM		
Client ID: ATR-MW59(29)-G060717R		Run ID: IC4_170620B				SeqNo: 4493149		Prep Date:		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	306.7	20	200	98.56	104	75-125	0			
Sulfate	201.8	20	200	0	101	75-125	0			

MSD		Sample ID: 1706567-29C MSD				Units: mg/L		Analysis Date: 6/21/2017 09:45 AM		
Client ID: ATR-MW59(29)-G060717R		Run ID: IC4_170620B				SeqNo: 4493151		Prep Date:		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	307.3	20	200	98.56	104	75-125	306.7	0.212	20	
Sulfate	204.3	20	200	0	102	75-125	201.8	1.23	20	

The following samples were analyzed in this batch:

1706567-16C	1706567-17C	1706567-18C
1706567-19C	1706567-20C	1706567-21C
1706567-22C	1706567-23C	1706567-24C
1706567-25C	1706567-27C	1706567-28C
1706567-29C	1706567-30C	1706567-31C
1706567-32C	1706567-33C	1706567-35C
1706567-36C	1706567-38C	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214361A** Instrument ID **TOC3** Method: **SW9060A**

MBLK	Sample ID: MBLK-R214361A		Units: mg/L		Analysis Date: 6/20/2017 01:05 PM					
Client ID:	Run ID: TOC3_170620A		SeqNo: 4493293		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Organic Carbon, Total ND 0.50

LCS	Sample ID: LCS-R214361A		Units: mg/L		Analysis Date: 6/20/2017 01:05 PM					
Client ID:	Run ID: TOC3_170620A		SeqNo: 4493294		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Organic Carbon, Total 5.084 0.50 5 0 102 91-110 0

MS	Sample ID: 1706952-01C MS		Units: mg/L		Analysis Date: 6/20/2017 01:05 PM					
Client ID:	Run ID: TOC3_170620A		SeqNo: 4493300		Prep Date:		DF: 4			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Organic Carbon, Total 22.9 2.0 20 1.334 108 87-120 0

MSD	Sample ID: 1706952-01C MSD		Units: mg/L		Analysis Date: 6/20/2017 01:05 PM					
Client ID:	Run ID: TOC3_170620A		SeqNo: 4493301		Prep Date:		DF: 4			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Organic Carbon, Total 23.08 2.0 20 1.334 109 87-120 22.9 0.783 10

The following samples were analyzed in this batch:

1706567-41B	1706567-44B	1706567-45B
1706567-46B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1706567
 Project: TFS Rochester, IN 3359-14-1040

QC BATCH REPORT

Batch ID: **R214475** Instrument ID **IC4** Method: **SW9056A**

MBLK		Sample ID: CCB/MBLK-R214475				Units: mg/L		Analysis Date: 6/22/2017 08:13 AM		
Client ID:		Run ID: IC4_170622B				SeqNo: 4496458		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.4122	1.0								J
Sulfate	ND	1.0								

LCS		Sample ID: LCS-R214475				Units: mg/L		Analysis Date: 6/22/2017 08:33 AM		
Client ID:		Run ID: IC4_170622B				SeqNo: 4496459		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.52	1.0	10	0	95.2	88-110	0			
Sulfate	9.91	1.0	10	0	99.1	85-110	0			

MS		Sample ID: 1706567-45C MS				Units: mg/L		Analysis Date: 6/22/2017 09:14 PM		
Client ID: ATR-MW25(16.4)-G060617		Run ID: IC4_170622B				SeqNo: 4496485		Prep Date:		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	128.4	10	100	29.02	99.4	75-125	0			
Sulfate	106.3	10	100	3.292	103	75-125	0			

MSD		Sample ID: 1706567-45C MSD				Units: mg/L		Analysis Date: 6/22/2017 09:35 PM		
Client ID: ATR-MW25(16.4)-G060617		Run ID: IC4_170622B				SeqNo: 4496486		Prep Date:		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	125	10	100	29.02	96	75-125	128.4	2.71	20	
Sulfate	103.5	10	100	3.292	100	75-125	106.3	2.66	20	

The following samples were analyzed in this batch:

1706567-39C	1706567-40C	1706567-41C
1706567-42C	1706567-44C	1706567-45C
1706567-46C	1706567-47C	1706567-48C
1706567-49C	1706567-50C	1706567-51C
1706567-52C	1706567-53C	1706567-58C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1



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COC ID: **43724**

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ALS Project Manager:

ALS Work Order #: **1706567**

Customer Information		Project Information				Parameter/Method Request for Analysis										
Purchase Order	CO12605142	Project Name	TFS Rochester, IN	A	VOCs											
Work Order		Project Number	3359-15-1040	B	TOC, Nitrate/Nitrite											
Company Name	AMEC Foster Wheeler	Bill To Company	AMEC Foster Wheeler	C	Chloride, Sulfate, Alkalinity, Bicarbonate											
Send Report To	Paul Stork	Invoice Attn	Paul Stork	D	Iron and Manganese											
Address	521 Byers Road, Suite 204	Address	521 Byers Road, Suite 204	E												
				F												
City/State/Zip	Miamisburg, OH 45342	City/State/Zip	Miamisburg, OH 45342	G												
Phone	(937) 859-3600	Phone	(937) 859-3600	H												
Fax	(937) 859-7951	Fax	(937) 859-7951	I												
e-Mail Address	Paul.Stork@amecsw.com	e-Mail Address		J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	ATR-MW68-6060817	6-8-17	1205	W	123	6	X	X	X	X							
2	ATR-MW72-6060817	6-8-17	1105	W	123	6	X	X	X	X							
3	ATR-EB001-6060817	6-8-17	0955	W	123 SUP	3	X	X	X	X	SUP						
4	ATR-MW72-6060817	6-8-17	1000	W	123	6	X	X	X	X							
5	ATR-MW78-6060817	6-8-17	1135	W	123	6	X	X	X	X							
6	ATR-MW78-6060817 MS	6-8-17	1135	W	1	3	X										
7	ATR-MW78-6060817 MSD	6-8-17	1135	W	1	3	X										
8	ATR-MW76-6060817	6-8-17	1340	W	123	6	X	X	X	X							
9	ATR-EB002-6060817	6-8-17	1505	W	123	6	X	X	X	X							
10	ATR-FB001-6060817	6-8-17	1520	W	1	3	X										

Sampler(s) Please Print & Sign: *Sam Partzka* Shipment Method: *Cooler* Turnaround Time in Business Days (BD): 10 BD 5 BD 3 BD 2 BD 1 BD Other: _____ Results Due Date: _____

Relinquished by: *[Signature]* Date: *6/8/17* Time: *1830* Received by: *[Signature]* Notes: _____
 Relinquished by: *[Signature]* Date: *6/9/17* Time: *1300* Received by (Laboratory): *[Signature]* Cooler ID: *SR2* Cooler Temp: *3.0°C*
 Logged by (Laboratory): *[Signature]* Date: *6/9/17* Time: *1525* Checked by (Laboratory): *[Signature]* Cooler ID: *PU7* Cooler Temp: *5.2°C*
 Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035
 QC Package: (Check One Box Below)
 Level II Std QC TRRP Checklist
 Level III Std QC/Raw Data TRRP Level IV
 Level IV SW846/CLP
 Other _____



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COC ID: 43737

ALS Project Manager:

ALS Work Order #: 1700507

Customer Information		Project Information				Parameter/Method Request for Analysis									
Purchase Order	<u>CG12605142</u>	Project Name	<u>TFS Rochester, IN</u>	A	<u>VOCs</u>										
Work Order		Project Number	<u>3359-15-1040</u>	B	<u>TOC, Nitrate/Nitrite</u>										
Company Name	<u>AMEC Foster Wheeler</u>	Bill To Company	<u>AMEC Foster Wheeler</u>	C	<u>Chloride, Sulfate, Alkalinity, Bicarbonate</u>										
Send Report To	<u>Paul Stork</u>	Invoice Attn	<u>Paul Stork</u>	D	<u>Iron and Manganese</u>										
Address	<u>521 Byers Road, Suite 204</u>	Address	<u>521 Byers Road, Suite 204</u>	E											
				F											
City/State/Zip	<u>Miamisburg, OH 45342</u>	City/State/Zip	<u>Miamisburg, OH 45342</u>	G											
Phone	<u>(937) 859-3600</u>	Phone	<u>(937) 859-3600</u>	H											
Fax	<u>(937) 859-7951</u>	Fax	<u>(937) 859-7951</u>	I											
e-Mail Address	<u>Paul.Stork@amecflw</u>	e-Mail Address		J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<u>ATR-MW24(55.4)-G060717</u>	<u>6-7-17</u>	<u>0840</u>	<u>w</u>	<u>123</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
2	<u>ATR-EG002-G060717</u>	<u>6-7-17</u>	<u>0910</u>	<u>w</u>	<u>1</u>	<u>3</u>	<u>X</u>										
3	<u>ATR-MW14-G060717</u>	<u>6-7-17</u>	<u>0955</u>	<u>w</u>	<u>123</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
4	<u>ATR-MW20(51)-G060717</u>	<u>6-7-17</u>	<u>1135</u>	<u>w</u>	<u>123</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
5	<u>ATR-MW20(35)-G060717</u>	<u>6-7-17</u>	<u>1300</u>	<u>w</u>	<u>123</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
6	<u>ATR-MW20(35)-G060717R</u>	<u>6-7-17</u>	<u>1308</u>	<u>w</u>	<u>123</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
7	<u>ATR-MW6L-G060717</u>	<u>6-7-17</u>	<u>1445</u>	<u>w</u>	<u>123</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
8	<u>ATR-MW62(36)-G060717</u>	<u>6-7-17</u>	<u>1600</u>	<u>w</u>	<u>123</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
9	<u>ATR-MW67-G060817</u>	<u>6-8-17</u>	<u>1430</u>	<u>w</u>	<u>123</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
10	<u>ATR-MW71-G060817</u>	<u>6-8-17</u>	<u>1315</u>	<u>w</u>	<u>123</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							

Sampler(s) Please Print & Sign: Sam Partzke Shipment Method: Courier Turnaround Time in Business Days (BD): 10 BD 5 BD 3 BD 2 BD 1 BD Other: _____ Results Due Date: _____

Relinquished by: [Signature] Date: 6-8-17 Time: 1830 Received by: [Signature] Notes: _____
 Relinquished by: [Signature] Date: 6/9/17 Time: 1200 Received by (Laboratory): _____
 Logged by (Laboratory): [Signature] Date: 6/9/17 Time: 1525 Checked by (Laboratory): _____

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₈ 6-NaHSO₄ 7-Other 8-4°C 9-5035

QC Package: (Check One Box Below)
 Level II Std QC TRAP Checklist
 Level III Std QC/Raw Date TRAP Level IV
 Level IV SW846/CLP
 Other _____



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COC ID: 43739

ALS Project Manager:

ALS Work Order #: 1706567

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	<u>C012605142</u>	Project Name	TFS Rochester, IN	A	VOCs
Work Order		Project Number	3359-15-1040	B	TOC, Nitrate/Nitrite
Company Name	AMEC Foster Wheeler	Bill To Company	AMEC Foster Wheeler	C	Chloride, Sulfate, Alkalinity, Bicarbonate
Send Report To	Paul Stork	Invoice Attn	Paul Stork	D	Iron and Manganese
Address	521 Byers Road, Suite 204	Address	521 Byers Road, Suite 204	E	
				F	
City/State/Zip	Miamisburg, OH 45342	City/State/Zip	Miamisburg, OH 45342	G	
Phone	(937) 859-3600	Phone	(937) 859-3600	H	
Fax	(937) 859-7951	Fax	(937) 859-7951	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	ATR-MW16-G060617	6-6-17	1120	W	123	6	X	X	X	X							
2	ATR-MW17-G060617	6-6-17	1005	W	123	6	X	X	X	X							
3	ATR-OW3(55)-G060717	6-7-17	0905	W	123	6	X	X	X	X							
4	ATR-OW3(35)-G060717	6-7-17	1010	W	123	6	X	X	X	X							
5	ATR-OW3(35)-G060717 MS	6-7-17	1010	W	1	3	X										
6	ATR-OW3(35)-G060717 MSD	6-7-17	1010	W	1	3	X										
7	ATR-OW1(34)-G060717	6-7-17	1125	W	123	6	X	X	X	X							
8	ATR-OW1(33)-G060717 MS	6-7-17	1125	W	1	3	X										
9	ATR-OW1(33)-G060717 MSD	6-7-17	1125	W	1	3	X										
10	ATR-OW1(33)-G060717	6-7-17	1235	W	123	6	X	X	X	X							

Sampler(s) Please Print & Sign: Sam Partylka Shipment Method: COLLECT Turnaround Time in Business Days (BD): 10 BD 5 BD 3 BD 2 BD 1 BD Other: _____ Results Due Date: _____

Relinquished by: [Signature] Date: 6-8-17 Time: 1830 Received by: [Signature] Notes: _____
 Relinquished by: [Signature] Date: 6/9/17 Time: 1300 Received by (Laboratory): [Signature] Cooler ID: _____ Cooler Temp: _____ QC Package: (Check One Box Below)
 Logged by (Laboratory): [Signature] Date: 6/9/17 Time: 1525 Checked by (Laboratory): [Signature] Level II Std QC TRRP Checklist
 Level III Std QC/Raw Data TRRP Level IV
 Level IV SW846/CLP Other _____



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ALS Project Manager:

ALS Work Order #: **1706567**

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order	C012605142	Project Name	TFS Rochester, IN	A	VOCs										
Work Order		Project Number	3359-15-1040	B	TOC, Nitrate/Nitrite										
Company Name	AMEC Foster Wheeler	Bill To Company	AMEC Foster Wheeler	C	Chloride, Sulfate, Alkalinity, Bicarbonate										
Send Report To	Paul Stork	Invoice Attn	Paul Stork	D	Iron and Manganese										
Address	521 Byers Road, Suite 204	Address	521 Byers Road, Suite 204	E											
				F											
City/State/Zip	Miamisburg, OH 45342	City/State/Zip	Miamisburg, OH 45342	G											
Phone	(937) 859-3600	Phone	(937) 859-3600	H											
Fax	(937) 859-7951	Fax	(937) 859-7951	I											
e-Mail Address		e-Mail Address		J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	ATR-MW82-6060717	6-7-17	1355	W	123	6	X	X	X	X							
2	ATR-EB001-6060717	6-7-17	1415	W	1	3	X										
3	ATR-MW13-6060717	6-7-17	1500	W	123	6	X	X	X	X							
4	ATR-MW59(29)-6060717	6-7-17	1345	W	123	6	X	X	X	X							
5	ATR-MW59(29)-6060717R	6-7-17	1345	W	123	6	X	X	X	X							
6	ATR-OW4(35)-6060717	6-7-17	0835	W	123	6	X	X	X	X							
7	ATR-MW 81(27)-6060717	6-7-17	1035	W	123	6	X	X	X	X							
8	ATR-PM2-6060717	6-7-17	1515	W	123	6	X	X	X	X							
9	ATR-PM3-6060717	6-7-17	1640	W	123	6	X	X	X	X							
10	ATR-EB003-6060617	6-7-17	1705	W	123	6	X	X	X	X							

Sampler(s) Please Print & Sign: **Sam Partyka** Shipment Method: **Carrier** Turnaround Time in Business Days (BD): 10 BD 5 BD 3 BD 2 BD 1 BD Results Due Date:

Relinquished by: [Signature]	Date: 6-8-17	Time: 1830	Received by: [Signature]	Notes:
Relinquished by: [Signature]	Date: 6/9/17	Time: 1300	Received by (Laboratory): [Signature]	Cooler ID
Logged by (Laboratory): [Signature]	Date: 6/9/17	Time: 1525	Checked by (Laboratory): [Signature]	Cooler Temp
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035				QC Package: (Check One Box Below)
				<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist
				<input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> TRRP Level IV
				<input type="checkbox"/> Level IV SW846/CLP
				<input type="checkbox"/> Other



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ALS Project Manager:

ALS Work Order #: **1706567**

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	CO12605142	Project Name	TFS Rochester, IN	A	VOCs
Work Order		Project Number	3359-15-1040	B	TOC, Nitrate/Nitrite
Company Name	AMEC Foster Wheeler	Bill To Company	AMEC Foster Wheeler	C	Chloride, Sulfate, Alkalinity, Bicarbonate
Send Report To	Paul Stork	Invoice Attn	Paul Stork	D	Iron and Manganese
Address	521 Byers Road, Suite 204	Address	521 Byers Road, Suite 204	E	
				F	
City/State/Zip	Miamisburg, OH 45342	City/State/Zip	Miamisburg, OH 45342	G	
Phone	(937) 859-3600	Phone	(937) 859-3600	H	
Fax	(937) 859-7951	Fax	(937) 859-7951	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	ATR-ZV22(32.5)-G060617	5-6-17	0930	W	123	6	X	X	X	X							
2	ATR-ZV22(17.5)-G060617	5-6-17	1035	W	123	6	X	X	X	X							
3	ATR-EB001-G060617	5-6-17	1100	W	123	63	X										
4	ATR-OW5(44)-G060617	5-6-17	1155	W	123	6	X	X	X	X							
5	ATR-OW5(35)-G060617	5-6-17	1245	W	123	6	X	X	X	X							
6	ATR-OW5(16)-G060617	5-6-17	1355	W	123	6	X	X	X	X							
7	ATR-OW2(53)-G060617	5-6-17	1515	W	123	6	X	X	X	X							
8	ATR-OW2(33)-G060617	5-6-17	1620	W	123	6	X	X	X	X							
9	ATR-EB003-G060617	6-6-17	1640	W	123	63	X										
10	ATR-OW4(54)-G060617	6-6-17	1615	W	123	6	X	X	X	X							

Sampler(s) Please Print & Sign: Sam Partridge Shipment Method: Courier Turnaround Time in Business Days (BD): 10 BD 5 BD 3 BD 2 BD 1 BD Other: _____ Results Due Date: _____

Relinquished by: [Signature] Date: 6-8-17 Time: 1830 Received by: [Signature] Notes: _____
 Relinquished to: [Signature] Date: 6/9/17 Time: 1700 Received by (Laboratory): _____ Cooler ID: _____ Cooler Temp: _____
 Logged by (Laboratory): [Signature] Date: 6/9/17 Time: 1525 Checked by (Laboratory): _____ QC Package: (Check One Box Below)
 Level II Std QC TRAP Checklist
 Level III Std QC/Raw Date TRAP Level IV
 Level IV SW846/CLP
 Other _____



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COC ID: 43721

Customer Information		Project Information		ALS Project Manager: _____ ALS Work Order #: <u>1706567</u>											
Parameter/Method Request for Analysis															
Purchase Order	<u>C012605142</u>	Project Name	TFS Rochester, IN	A	VOCs										
Work Order		Project Number	3359-15-1040	B	TOC, Nitrate/Nitrite										
Company Name	AMEC Foster Wheeler	Bill To Company	AMEC Foster Wheeler	C	Chloride, Sulfate, Alkalinity, Bicarbonate										
Send Report To	Paul Stork	Invoice Attn	Paul Stork	D	Iron and Manganese										
Address	521 Byers Road, Suite 204	Address	521 Byers Road, Suite 204	E											
				F											
City/State/Zip	Miamisburg, OH 45342	City/State/Zip	Miamisburg, OH 45342	G											
Phone	(937) 859-3600	Phone	(937) 859-3600	H											
Fax	(937) 859-7951	Fax	(937) 859-7951	I											
e-Mail Address		e-Mail Address		J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	ATR-MW25(16.4)-6060617	6-6-17	1425	W	123	6	X	X	X	X							
2	ATR-MW25(16.4)-6060617R	6-6-17	1425	W	123	6	X	X	X	X							
3	ATR-MW25(32.6)-6060617	6-6-17	1320	W	123	6	X	X	X	X							
4	ATR-MW25(45.2)-6060617	6-6-17	1205	W	123	6	X	X	X	X							
5	ATR-MW15-6060617	6-6-17	1035	W	123	6	X	X	X	X							
6	ATR-MW24(24.9)-6060617	6-6-17	1635	W	123	6	X	X	X	X							
7	ATR-MW26(17.5)-6060617	6-6-17	1515	W	123	6	X	X	X	X							
8	ATR-MW26(28.8)-6060617	6-6-17	1400	W	123	6	X	X	X	X							
9	ATR-MW26(58.2)-6060617	6-6-17	1245	W	123	6	X	X	X	X							
10	ATR-EB002-6060617	6-6-17	1155	W	1	3	X										

Sampler(s) Please Print & Sign <u>Sara Portyke</u>	Shipment Method <u>Carrier</u>	Turnaround Time in Business Days (BD) <input type="checkbox"/> 10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 3 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> 1 BD	Results Due Date:
---	-----------------------------------	---	-------------------

Relinquished by: <u>[Signature]</u>	Date: <u>6-9-17</u>	Time: <u>1530</u>	Received by: <u>[Signature]</u>	Notes:
Relinquished by: <u>[Signature]</u>	Date: <u>6/9/17</u>	Time: <u>1300</u>	Received by (Laboratory): <u>[Signature]</u>	QC Package: (Check One Box Below)
Logged by (Laboratory): <u>[Signature]</u>	Date: <u>6/9/17</u>	Time: <u>1525</u>	Checked by (Laboratory): <u>[Signature]</u>	<input type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Date <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other _____



Cincinnati, OH
+1 513 733 5336

Fort Collins, CO
+1 970 490 1511

Everett, WA
+1 425 356 2600

Holland, MI
+1 616 399 6070

Chain of Custody Form

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COC ID: 43725

Houston, TX
+1 281 530 5656

Spring City, PA
+1 610 948 4903

South Charleston, WV
+1 304 356 3168

Middletown, PA
+1 717 944 5541

Salt Lake City, UT
+1 801 266 7700

York, PA
+1 717 505 5280

ALS Project Manager:

ALS Work Order #: 1706567

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order	<u>C012605142</u>	Project Name	<u>TFS Rochester, IN</u>	A	<u>VOCs</u>										
Work Order		Project Number	<u>3359-15-1040</u>	B	<u>TOC, Nitrate/Nitrite</u>										
Company Name	<u>AMEC Foster Wheeler</u>	Bill To Company	<u>AMEC Foster Wheeler</u>	C	<u>Chloride, Sulfate, Alkalinity, Bicarbonate</u>										
Send Report To	<u>Paul Stork</u>	Invoice Attn	<u>Paul Stork</u>	D	<u>Iron and Manganese</u>										
Address	<u>521 Byers Road, Suite 204</u>	Address	<u>521 Byers Road, Suite 204</u>	E											
				F											
City/State/Zip	<u>Miamisburg, OH 45342</u>	City/State/Zip	<u>Miamisburg, OH 45342</u>	G											
Phone	<u>(937) 859-3600</u>	Phone	<u>(937) 859-3600</u>	H											
Fax	<u>(937) 859-7951</u>	Fax	<u>(937) 859-7951</u>	I											
e-Mail Address	<u>Paul.Stork@amecsw.com</u>	e-Mail Address		J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Trip Blank					1	X										
2						1	X										
3							1	X									
4	<u>ATR-MW12-G060717</u>	<u>6/7/2017</u>	<u>4:20:00 PM</u>	<u>W</u>	<u>1,2,3</u>	<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							
5	<u>JR 6/9/17</u>																
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <u>Sam Portylos</u>		Shipment Method <u>Carrier</u>		Turnaround Time in Business Days (BD) <input type="checkbox"/> 10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 3 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> 1 BD				Results Due Date:			
Relinquished by: <u>[Signature]</u>	Date: <u>6-8-17</u>	Time: <u>1830</u>	Received by: <u>[Signature]</u>		Notes:						
Relinquished by: <u>[Signature]</u>	Date: <u>6/9/17</u>	Time: <u>1300</u>	Received by Laboratory: <u>[Signature]</u>		Cooler ID	Cooler Temp	QC Package: (Check One Box Below)				
Logged by (Laboratory): <u>[Signature]</u>	Date: <u>6/9/17</u>	Time: <u>1525</u>	Checked by (Laboratory): <u>[Signature]</u>				<input type="checkbox"/> Level II Std QC	<input type="checkbox"/> TRRP Checklist			
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035							<input type="checkbox"/> Level III Std QC/Raw Date	<input type="checkbox"/> TRRP Level IV			
							<input type="checkbox"/> Level IV SW846/CLP				
							<input type="checkbox"/> Other				

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Sample Receipt Checklist

Client Name: **AMEC - DAYTON**

Date/Time Received: **09-Jun-17 00:00**

Work Order: **1706567**

Received by: **JR**

Checklist completed by Joseph Ribar 12-Jun-17
eSignature Date

Reviewed by: Joseph Ribar 12-Jun-17
eSignature Date

Matrices: water

Carrier name: ALSHN

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

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

Custody seals intact on sample bottles? Yes No Not Present

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Container/Temp Blank temperature in compliance? Yes No

Sample(s) received on ice? Yes No

Temperature(s)/Thermometer(s): 3.6, 5.2, 5.4c/3.6, 5.2, 5.4c SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 6/9/2017 14:50:11 PM

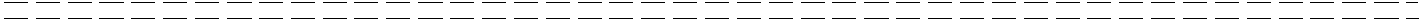
Water - VOA vials have zero headspace? Yes No No VOA vials submitted

Water - pH acceptable upon receipt? Yes No N/A

pH adjusted? Yes No N/A

pH adjusted by:

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction:



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

June 26, 2017

Paul Stork
AMEC Foster Wheeler
521 Byers Road
Suite 204
Miamisburg, OH 45342

RE: **TFS ROCHESTER / 3359151040**

Pace Workorder: 22974

Dear Paul Stork:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday, June 12, 2017. 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 06/26/2017
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

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

Total Number of Pages 83



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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).



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SAMPLE SUMMARY

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID	Sample ID	Matrix	Date Collected	Date Received
229740001	ATR-ZVI2(32.5)-G060617	Water	6/6/2017 09:30	6/12/2017 07:30
229740002	ATR-ZVI2(17.5)-G060617	Water	6/6/2017 10:35	6/12/2017 07:30
229740003	ATR-OW5(44)-G060617	Water	6/6/2017 11:55	6/12/2017 07:30
229740004	ATR-OW5(35)-G060617	Water	6/6/2017 12:45	6/12/2017 07:30
229740005	ATR-OW5(16)-G060617	Water	6/6/2017 13:55	6/12/2017 07:30
229740006	ATR-OW2(53)-G060617	Water	6/6/2017 15:15	6/12/2017 07:30
229740007	ATR-OW2(33)-G060617	Water	6/6/2017 16:20	6/12/2017 07:30
229740008	ATR-OW4(54)-G060617	Water	6/6/2017 16:15	6/12/2017 07:30
229740009	ATR-MW25(16.4)-G060617	Water	6/6/2017 14:25	6/12/2017 07:30
229740010	ATR-MW25(16.4)-G060617R	Water	6/6/2017 14:25	6/12/2017 07:30
229740011	ATR-MW25(32.6)-G060617	Water	6/6/2017 13:20	6/12/2017 07:30
229740012	ATR-MW25(45.2)-G060617	Water	6/6/2017 12:05	6/12/2017 07:30
229740013	ATR-MW24(24.9)-G060617	Water	6/6/2017 16:35	6/12/2017 07:30
229740014	ATR-MW26(17.5)-G060617	Water	6/6/2017 15:15	6/12/2017 07:30
229740015	ATR-MW26(28.8)-G060617	Water	6/6/2017 14:00	6/12/2017 07:30
229740016	ATR-MW26(58.2)-G060617	Water	6/6/2017 12:45	6/12/2017 07:30
229740017	ATR-MW16-G060617	Water	6/6/2017 11:20	6/12/2017 07:30
229740018	ATR-MW17-G060617	Water	6/6/2017 10:05	6/12/2017 07:30
229740019	ATR-OW3(55)-G060717	Water	6/7/2017 09:05	6/12/2017 07:30
229740020	ATR-OW3(35)-G060717	Water	6/7/2017 10:10	6/12/2017 07:30
229740021	ATR-OW1(39)-G060717	Water	6/7/2017 11:25	6/12/2017 07:30
229740022	ATR-OW1(28)-G060717	Water	6/7/2017 12:35	6/12/2017 07:30
229740023	ATR-MW82-G060717	Water	6/7/2017 13:55	6/12/2017 07:30
229740024	ATR-MW13-G060717	Water	6/7/2017 15:00	6/12/2017 07:30
229740025	ATR-MW6C-G060717	Water	6/7/2017 14:45	6/12/2017 07:30
229740026	ATR-MW62(36)-G060717	Water	6/7/2017 16:00	6/12/2017 07:30
229740027	ATR-MW67-G060817	Water	6/8/2017 14:30	6/12/2017 07:30
229740028	ATR-MW71-G060817	Water	6/8/2017 13:15	6/12/2017 07:30
229740029	ATR-MW68-G060817	Water	6/8/2017 12:05	6/12/2017 07:30
229740030	ATR-MW72-G060817	Water	6/8/2017 11:05	6/12/2017 07:30
229740031	ATR-MW77-G060817	Water	6/8/2017 10:00	6/12/2017 07:30
229740032	ATR-MW78-G060817	Water	6/8/2017 11:35	6/12/2017 07:30
229740033	ATR-MW76-G060817	Water	6/8/2017 13:40	6/12/2017 07:30
229740034	ATR-EB002-G060817	Water	6/8/2017 15:05	6/12/2017 07:30
229740035	ATR-MW12-G060717	Water	6/7/2017 16:20	6/12/2017 07:30



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SAMPLE SUMMARY

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID	Sample ID	Matrix	Date Collected	Date Received
229740036	ATR-MW59(29)-G060717	Water	6/7/2017 13:45	6/12/2017 07:30
229740037	ATR-MW59(29)-G060717R	Water	6/7/2017 13:45	6/12/2017 07:30
229740038	ATR-OW4(35)-G060717	Water	6/7/2017 08:55	6/12/2017 07:30
229740039	ATR-MW81(27)-G060717	Water	6/7/2017 10:35	6/12/2017 07:30
229740040	ATR-PM2-G060717	Water	6/7/2017 15:15	6/12/2017 07:30
229740041	ATR-PM3-G060717	Water	6/7/2017 16:40	6/12/2017 07:30
229740042	ATR-MW24(55.4)-G060717	Water	6/7/2017 08:40	6/12/2017 07:30
229740043	ATR-MW14-G060717	Water	6/7/2017 09:55	6/12/2017 07:30
229740044	ATR-MW20(51)-G060717	Water	6/7/2017 11:35	6/12/2017 07:30
229740045	ATR-MW20(35)-G060717	Water	6/7/2017 13:00	6/12/2017 07:30
229740046	ATR-MW20(35)-G060717R	Water	6/7/2017 13:00	6/12/2017 07:30
229740047	ATR-MW15-G060617	Water	6/6/2017 10:35	6/12/2017 07:30



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PROJECT SUMMARY

Workorder: 22974 TFS ROCHESTER / 3359151040

Workorder Comments

The container pH for samples 22974 (0003, 0028-0029, 0033, 0038, 0041, 0047) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

The original analysis of the samples 22974 (0036-0043, 0047) was conducted within the procedural holdtime of 14 days from collection; method AM23G. Subsequent dilutions and/or re-analysis of the samples were conducted outside the assigned holding time period.

Batch Comments

Batch: EDON/3401 - Low Level Volatile Fatty Acids

The percent recovery for the closing calibration verification was above laboratory control limits. Analytes Pyruvic acid. Samples with concentrations that exceeded the reporting limit shall be reanalyzed.

The matrix spike and/or spike duplicate, recovery or relative percent difference; accuracy influenced by the concentration of the reference sample 229740001. Analyte Lactic, Acetic, Propionic and iso-Hexanoic acids. Batch acceptance based on laboratory control sample recovery.

Batch: EDON/3402 - Low Level Volatile Fatty Acids

The percent recovery for the calibration verification was above laboratory control limits. Analytes Pyruvic acid. Samples with concentrations that exceeded the reporting limit shall be reanalyzed.

The matrix spike and/or spike duplicate, recovery or relative percent difference; accuracy influenced by the reference sample 229740021. Analyte iso-Hexanoic acids. Batch acceptance based on laboratory control sample recovery.

Batch: EDON/3403 - Low Level Volatile Fatty Acids

The percent recovery for the calibration verification was above laboratory control limits. Analytes Pyruvic acid. Samples with concentrations that exceeded the reporting limit shall be reanalyzed.

The matrix spike and/or spike duplicate, recovery or relative percent difference; accuracy influenced by the concentration of the reference sample 229740041. All analytes except iso-Hexanoic acid. Batch acceptance based on laboratory control sample recovery.



ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740001** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-ZVI2(32.5)-G060617** Date Collected: 6/6/2017 09:30

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	0.11	10	6/19/2017 19:28	KB	d,B
Acetic Acid	83	mg/l	10	1.2	100	6/19/2017 20:21	KB	d,B
Propionic Acid	16	mg/l	10	0.55	100	6/19/2017 20:21	KB	d
Formic Acid	0.84	mg/l	0.20	0.033	1	6/16/2017 12:26	KB	B
Butyric Acid	0.74	mg/l	0.10	0.0055	1	6/16/2017 12:26	KB	
Pyruvic Acid	0.89J	mg/l	1.0	0.089	10	6/19/2017 19:28	KB	d
i-Pentanoic Acid	0.50	mg/l	0.10	0.0098	1	6/16/2017 12:26	KB	
Pentanoic Acid	0.28	mg/l	0.10	0.0082	1	6/16/2017 12:26	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 12:26	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/16/2017 12:26	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	34000	ug/l	0.50	0.027	1	6/19/2017 10:11	BW	n
Ethane	170	ug/l	0.10	0.0030	1	6/19/2017 10:11	BW	n
Ethene	1.7	ug/l	0.10	0.0010	1	6/19/2017 10:11	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740002** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-ZVI2(17.5)-G060617** Date Collected: 6/6/2017 10:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 15:06	KB	M3,B,M5
Acetic Acid	0.054J	mg/l	0.10	0.012	1	6/16/2017 15:06	KB	M3,B,M5
Propionic Acid	0.10 U	mg/l	0.10	0.0055	1	6/16/2017 15:06	KB	M3,M5
Formic Acid	0.058J	mg/l	0.20	0.033	1	6/16/2017 15:06	KB	B
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/16/2017 15:06	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/16/2017 15:06	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/16/2017 15:06	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/16/2017 15:06	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 15:06	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/16/2017 15:06	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	27000	ug/l	0.50	0.027	1	6/19/2017 10:23	BW	n
Ethane	200	ug/l	0.10	0.0030	1	6/19/2017 10:23	BW	n
Ethene	0.0042J	ug/l	0.10	0.0010	1	6/19/2017 10:23	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740003** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW5(44)-G060617** Date Collected: 6/6/2017 11:55

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	0.11	10	6/19/2017 21:14	KB	d,B
Acetic Acid	420	mg/l	10	1.2	100	6/19/2017 22:08	KB	d,B
Propionic Acid	230	mg/l	10	0.55	100	6/19/2017 22:08	KB	d
Formic Acid	20 U	mg/l	20	3.3	100	6/19/2017 22:08	KB	d,B
Butyric Acid	19	mg/l	10	0.55	100	6/19/2017 22:08	KB	d
Pyruvic Acid	4.3	mg/l	1.0	0.089	10	6/19/2017 21:14	KB	d
i-Pentanoic Acid	3.0	mg/l	1.0	0.098	10	6/19/2017 21:14	KB	d
Pentanoic Acid	5.8	mg/l	1.0	0.082	10	6/19/2017 21:14	KB	d
i-Hexanoic Acid	0.50	mg/l	0.20	0.011	1	6/16/2017 16:00	KB	M3
Hexanoic Acid	0.52	mg/l	0.20	0.0095	1	6/16/2017 16:00	KB	

RISK - PAES

Analysis Desc: AM20GAX	Analytical Method: AM20GAX							
Methane	25000	ug/l	0.50	0.027	1	6/19/2017 11:42	BW	n
Ethane	120	ug/l	0.10	0.0030	1	6/19/2017 11:42	BW	n
Ethene	1.5	ug/l	0.10	0.0010	1	6/19/2017 11:42	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740004** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW5(35)-G060617** Date Collected: 6/6/2017 12:45

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	0.11	10	6/19/2017 23:54	KB	d,B
Acetic Acid	45	mg/l	1.0	0.12	10	6/19/2017 23:54	KB	d,B
Propionic Acid	0.19J	mg/l	1.0	0.055	10	6/19/2017 23:54	KB	d
Formic Acid	0.24	mg/l	0.20	0.033	1	6/16/2017 16:53	KB	B
Butyric Acid	0.14	mg/l	0.10	0.0055	1	6/16/2017 16:53	KB	
Pyruvic Acid	0.032J	mg/l	0.10	0.0089	1	6/16/2017 16:53	KB	M1
i-Pentanoic Acid	0.13	mg/l	0.10	0.0098	1	6/16/2017 16:53	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/16/2017 16:53	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 16:53	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/16/2017 16:53	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	28000	ug/l	0.50	0.027	1	6/19/2017 11:55	BW	n
Ethane	34	ug/l	0.10	0.0030	1	6/19/2017 11:55	BW	n
Ethene	0.016J	ug/l	0.10	0.0010	1	6/19/2017 11:55	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740005** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW5(16)-G060617** Date Collected: 6/6/2017 13:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.036J	mg/l	0.20	0.011	1	6/16/2017 17:46	KB	M3,B,M5
Acetic Acid	0.30	mg/l	0.10	0.012	1	6/16/2017 17:46	KB	M3,B,M5
Propionic Acid	0.10 U	mg/l	0.10	0.0055	1	6/16/2017 17:46	KB	M3,M5
Formic Acid	0.036J	mg/l	0.20	0.033	1	6/16/2017 17:46	KB	B
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/16/2017 17:46	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/16/2017 17:46	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/16/2017 17:46	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/16/2017 17:46	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 17:46	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/16/2017 17:46	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	18000	ug/l	0.50	0.027	1	6/19/2017 12:05	BW	n
Ethane	36	ug/l	0.10	0.0030	1	6/19/2017 12:05	BW	n
Ethene	1.8	ug/l	0.10	0.0010	1	6/19/2017 12:05	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740006** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW2(53)-G060617** Date Collected: 6/6/2017 15:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 18:40	KB	M3,B,M5
Acetic Acid	0.092J	mg/l	0.10	0.012	1	6/16/2017 18:40	KB	M3,B,M5
Propionic Acid	0.0061J	mg/l	0.10	0.0055	1	6/16/2017 18:40	KB	M3,M5
Formic Acid	0.089J	mg/l	0.20	0.033	1	6/16/2017 18:40	KB	B
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/16/2017 18:40	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/16/2017 18:40	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/16/2017 18:40	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/16/2017 18:40	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 18:40	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/16/2017 18:40	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	28000	ug/l	0.50	0.027	1	6/19/2017 12:46	BW	n
Ethane	26	ug/l	0.10	0.0030	1	6/19/2017 12:46	BW	n
Ethene	0.0096J	ug/l	0.10	0.0010	1	6/19/2017 12:46	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740007** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW2(33)-G060617** Date Collected: 6/6/2017 16:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/20/2017 01:41	KB	d,B
Acetic Acid	26	mg/l	1.0	0.12	10	6/20/2017 01:41	KB	d,B
Propionic Acid	0.22	mg/l	0.10	0.0055	1	6/16/2017 19:33	KB	M3,M5
Formic Acid	0.14J	mg/l	0.20	0.033	1	6/16/2017 19:33	KB	B
Butyric Acid	0.26	mg/l	0.10	0.0055	1	6/16/2017 19:33	KB	
Pyruvic Acid	0.017J	mg/l	0.10	0.0089	1	6/16/2017 19:33	KB	M1
i-Pentanoic Acid	0.024J	mg/l	0.10	0.0098	1	6/16/2017 19:33	KB	
Pentanoic Acid	0.014J	mg/l	0.10	0.0082	1	6/16/2017 19:33	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 19:33	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/16/2017 19:33	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	29000	ug/l	0.50	0.027	1	6/19/2017 14:05	BW	n
Ethane	200	ug/l	0.10	0.0030	1	6/19/2017 14:05	BW	n
Ethene	11	ug/l	0.10	0.0010	1	6/19/2017 14:05	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740008** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW4(54)-G060617** Date Collected: 6/6/2017 16:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/20/2017 02:34	KB	d,B
Acetic Acid	440	mg/l	100	12	1000	6/20/2017 04:21	KB	d,B
Propionic Acid	400	mg/l	100	5.5	1000	6/20/2017 04:21	KB	d
Formic Acid	2.3	mg/l	2.0	0.33	10	6/20/2017 02:34	KB	d,B
Butyric Acid	9.0	mg/l	1.0	0.055	10	6/20/2017 02:34	KB	d
Pyruvic Acid	4.0	mg/l	1.0	0.089	10	6/20/2017 02:34	KB	d
i-Pentanoic Acid	0.89	mg/l	0.10	0.0098	1	6/16/2017 20:26	KB	
Pentanoic Acid	3.3	mg/l	0.10	0.0082	1	6/16/2017 20:26	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 20:26	KB	M3
Hexanoic Acid	0.063J	mg/l	0.20	0.0095	1	6/16/2017 20:26	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	24000	ug/l	0.50	0.027	1	6/19/2017 14:16	BW	n
Ethane	0.19	ug/l	0.10	0.0030	1	6/19/2017 14:16	BW	n
Ethene	0.072J	ug/l	0.10	0.0010	1	6/19/2017 14:16	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740009** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW25(16.4)-G060617** Date Collected: 6/6/2017 14:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 21:20	KB	M3,B,M5
Acetic Acid	0.20	mg/l	0.10	0.012	1	6/16/2017 21:20	KB	M3,B,M5
Propionic Acid	0.011J	mg/l	0.10	0.0055	1	6/16/2017 21:20	KB	M3,M5
Formic Acid	0.044J	mg/l	0.20	0.033	1	6/16/2017 21:20	KB	B
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/16/2017 21:20	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/16/2017 21:20	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/16/2017 21:20	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/16/2017 21:20	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 21:20	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/16/2017 21:20	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	27000	ug/l	0.50	0.027	1	6/19/2017 14:28	BW	n
Ethane	240	ug/l	0.10	0.0030	1	6/19/2017 14:28	BW	n
Ethene	6.3	ug/l	0.10	0.0010	1	6/19/2017 14:28	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740010** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW25(16.4)-G060617R** Date Collected: 6/6/2017 14:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 22:13	KB	M3,B,M5
Acetic Acid	0.22	mg/l	0.10	0.012	1	6/16/2017 22:13	KB	M3,B,M5
Propionic Acid	0.10 U	mg/l	0.10	0.0055	1	6/16/2017 22:13	KB	M3,M5
Formic Acid	0.049J	mg/l	0.20	0.033	1	6/16/2017 22:13	KB	B
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/16/2017 22:13	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/16/2017 22:13	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/16/2017 22:13	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/16/2017 22:13	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/16/2017 22:13	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/16/2017 22:13	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	26000	ug/l	0.50	0.027	1	6/19/2017 14:43	BW	n
Ethane	240	ug/l	0.10	0.0030	1	6/19/2017 14:43	BW	n
Ethene	6.3	ug/l	0.10	0.0010	1	6/19/2017 14:43	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740011** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW25(32.6)-G060617** Date Collected: 6/6/2017 13:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/20/2017 05:14	KB	d,B
Acetic Acid	140	mg/l	10	1.2	100	6/20/2017 06:07	KB	d,B
Propionic Acid	51	mg/l	10	0.55	100	6/20/2017 06:07	KB	d
Formic Acid	0.92J	mg/l	2.0	0.33	10	6/20/2017 05:14	KB	d,B
Butyric Acid	0.77J	mg/l	1.0	0.055	10	6/20/2017 05:14	KB	d
Pyruvic Acid	3.3	mg/l	1.0	0.089	10	6/20/2017 05:14	KB	d
i-Pentanoic Acid	1.0	mg/l	0.10	0.0098	1	6/16/2017 23:06	KB	
Pentanoic Acid	0.68	mg/l	0.10	0.0082	1	6/16/2017 23:06	KB	
i-Hexanoic Acid	0.50	mg/l	0.20	0.011	1	6/16/2017 23:06	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/16/2017 23:06	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	28000	ug/l	0.50	0.027	1	6/19/2017 14:53	BW	n
Ethane	33	ug/l	0.10	0.0030	1	6/19/2017 14:53	BW	n
Ethene	0.028J	ug/l	0.10	0.0010	1	6/19/2017 14:53	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740012** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW25(45.2)-G060617** Date Collected: 6/6/2017 12:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	20 U	mg/l	20	1.1	100	6/20/2017 07:54	KB	d,B
Acetic Acid	830	mg/l	100	12	1000	6/20/2017 08:47	KB	d,B
Propionic Acid	130	mg/l	100	5.5	1000	6/20/2017 08:47	KB	d
Formic Acid	4.8	mg/l	2.0	0.33	10	6/20/2017 07:01	KB	d,B
Butyric Acid	17	mg/l	10	0.55	100	6/20/2017 07:54	KB	d
Pyruvic Acid	11	mg/l	10	0.89	100	6/20/2017 07:54	KB	d
i-Pentanoic Acid	3.6	mg/l	1.0	0.098	10	6/20/2017 07:01	KB	d
Pentanoic Acid	8.4	mg/l	1.0	0.082	10	6/20/2017 07:01	KB	d
i-Hexanoic Acid	0.24	mg/l	0.20	0.011	1	6/17/2017 00:00	KB	M3
Hexanoic Acid	1.3	mg/l	0.20	0.0095	1	6/17/2017 00:00	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	18000	ug/l	0.50	0.027	1	6/19/2017 15:02	BW	n
Ethane	310	ug/l	0.10	0.0030	1	6/19/2017 15:02	BW	n
Ethene	400	ug/l	0.10	0.0010	1	6/19/2017 15:02	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740013** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW24(24.9)-G060617** Date Collected: 6/6/2017 16:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G	Analytical Method: AM23G							
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 00:53	KB	M3,B,M5
Acetic Acid	0.044J	mg/l	0.10	0.012	1	6/17/2017 00:53	KB	M3,B,M5
Propionic Acid	0.0063J	mg/l	0.10	0.0055	1	6/17/2017 00:53	KB	M3,M5
Formic Acid	0.037J	mg/l	0.20	0.033	1	6/17/2017 00:53	KB	B
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/17/2017 00:53	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/17/2017 00:53	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/17/2017 00:53	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/17/2017 00:53	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 00:53	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/17/2017 00:53	KB	

RISK - PAES

Analysis Desc: AM20GAX	Analytical Method: AM20GAX							
Methane	250	ug/l	0.50	0.027	1	6/19/2017 15:16	BW	n
Ethane	0.027J	ug/l	0.10	0.0030	1	6/19/2017 15:16	BW	n
Ethene	0.035J	ug/l	0.10	0.0010	1	6/19/2017 15:16	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740014** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW26(17.5)-G060617** Date Collected: 6/6/2017 15:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.012J	mg/l	0.20	0.011	1	6/17/2017 01:46	KB	M3,B,M5
Acetic Acid	0.049J	mg/l	0.10	0.012	1	6/17/2017 01:46	KB	M3,B,M5
Propionic Acid	0.10 U	mg/l	0.10	0.0055	1	6/17/2017 01:46	KB	M3,M5
Formic Acid	0.044J	mg/l	0.20	0.033	1	6/17/2017 01:46	KB	B
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/17/2017 01:46	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/17/2017 01:46	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/17/2017 01:46	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/17/2017 01:46	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 01:46	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/17/2017 01:46	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	25000	ug/l	0.50	0.027	1	6/19/2017 15:27	BW	n
Ethane	180	ug/l	0.10	0.0030	1	6/19/2017 15:27	BW	n
Ethene	0.0042J	ug/l	0.10	0.0010	1	6/19/2017 15:27	BW	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740015** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW26(28.8)-G060617** Date Collected: 6/6/2017 14:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/20/2017 09:41	KB	d,B
Acetic Acid	110	mg/l	10	1.2	100	6/20/2017 10:34	KB	d,B
Propionic Acid	1.3	mg/l	1.0	0.055	10	6/20/2017 09:41	KB	d
Formic Acid	0.47J	mg/l	2.0	0.33	10	6/20/2017 09:41	KB	d,B
Butyric Acid	0.85J	mg/l	1.0	0.055	10	6/20/2017 09:41	KB	d
Pyruvic Acid	0.070J	mg/l	0.10	0.0089	1	6/17/2017 02:40	KB	M1
i-Pentanoic Acid	0.26	mg/l	0.10	0.0098	1	6/17/2017 02:40	KB	
Pentanoic Acid	0.023J	mg/l	0.10	0.0082	1	6/17/2017 02:40	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 02:40	KB	M3
Hexanoic Acid	0.11J	mg/l	0.20	0.0095	1	6/17/2017 02:40	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	27000	ug/l	0.50	0.027	1	6/17/2017 07:45	TD	n
Ethane	19	ug/l	0.10	0.0070	1	6/17/2017 07:45	TD	n
Ethene	0.10 U	ug/l	0.10	0.0090	1	6/17/2017 07:45	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740016** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW26(58.2)-G060617** Date Collected: 6/6/2017 12:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/20/2017 11:30	KB	d,B
Acetic Acid	220	mg/l	10	1.2	100	6/20/2017 12:23	KB	d,B
Propionic Acid	5.6J	mg/l	10	0.55	100	6/20/2017 12:23	KB	d
Formic Acid	0.84J	mg/l	2.0	0.33	10	6/20/2017 11:30	KB	d,B
Butyric Acid	1.6	mg/l	1.0	0.055	10	6/20/2017 11:30	KB	d
Pyruvic Acid	0.99J	mg/l	1.0	0.089	10	6/20/2017 11:30	KB	d
i-Pentanoic Acid	0.50	mg/l	0.10	0.0098	1	6/17/2017 03:33	KB	
Pentanoic Acid	0.20	mg/l	0.10	0.0082	1	6/17/2017 03:33	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 03:33	KB	M3
Hexanoic Acid	0.057J	mg/l	0.20	0.0095	1	6/17/2017 03:33	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	23000	ug/l	0.50	0.027	1	6/17/2017 08:00	TD	n
Ethane	33	ug/l	0.10	0.0070	1	6/17/2017 08:00	TD	n
Ethene	89	ug/l	0.10	0.0090	1	6/17/2017 08:00	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740017** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW16-G060617** Date Collected: 6/6/2017 11:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/20/2017 20:03	KB	d,B
Acetic Acid	200	mg/l	10	1.2	100	6/20/2017 20:56	KB	d,B
Propionic Acid	120	mg/l	10	0.55	100	6/20/2017 20:56	KB	d
Formic Acid	1.6J	mg/l	2.0	0.33	10	6/20/2017 20:03	KB	d,B
Butyric Acid	7.2	mg/l	1.0	0.055	10	6/20/2017 20:03	KB	d
Pyruvic Acid	2.6	mg/l	1.0	0.089	10	6/20/2017 20:03	KB	d
i-Pentanoic Acid	0.79	mg/l	0.10	0.0098	1	6/17/2017 04:26	KB	
Pentanoic Acid	3.1	mg/l	0.10	0.0082	1	6/17/2017 04:26	KB	
i-Hexanoic Acid	0.072J	mg/l	0.20	0.011	1	6/17/2017 04:26	KB	M3
Hexanoic Acid	0.25	mg/l	0.20	0.0095	1	6/17/2017 04:26	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.027	1	6/17/2017 08:13	TD	n
Ethane	160	ug/l	0.10	0.0070	1	6/17/2017 08:13	TD	n
Ethene	160	ug/l	0.10	0.0090	1	6/17/2017 08:13	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740018** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW17-G060617** Date Collected: 6/6/2017 10:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 05:19	KB	M3,B,M5
Acetic Acid	0.25	mg/l	0.10	0.012	1	6/17/2017 05:19	KB	M3,B,M5
Propionic Acid	0.037J	mg/l	0.10	0.0055	1	6/17/2017 05:19	KB	M3,M5
Formic Acid	0.20 U	mg/l	0.20	0.033	1	6/17/2017 05:19	KB	B
Butyric Acid	0.0065J	mg/l	0.10	0.0055	1	6/17/2017 05:19	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/17/2017 05:19	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/17/2017 05:19	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/17/2017 05:19	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 05:19	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/17/2017 05:19	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	10	ug/l	0.50	0.027	1	6/17/2017 08:28	TD	n
Ethane	0.026J	ug/l	0.10	0.0070	1	6/17/2017 08:28	TD	n
Ethene	0.037J	ug/l	0.10	0.0090	1	6/17/2017 08:28	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740019** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW3(55)-G060717** Date Collected: 6/7/2017 09:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	20 U	mg/l	20	1.1	100	6/20/2017 22:43	KB	d,B
Acetic Acid	740	mg/l	100	12	1000	6/20/2017 23:36	KB	d,B
Propionic Acid	190	mg/l	100	5.5	1000	6/20/2017 23:36	KB	d
Formic Acid	5.9	mg/l	2.0	0.33	10	6/20/2017 21:50	KB	d,B
Butyric Acid	28	mg/l	10	0.55	100	6/20/2017 22:43	KB	d
Pyruvic Acid	17	mg/l	1.0	0.089	10	6/20/2017 21:50	KB	d
i-Pentanoic Acid	3.6	mg/l	0.10	0.0098	1	6/17/2017 06:13	KB	
Pentanoic Acid	12	mg/l	1.0	0.082	10	6/20/2017 21:50	KB	d
i-Hexanoic Acid	0.30	mg/l	0.20	0.011	1	6/17/2017 06:13	KB	M3
Hexanoic Acid	6.3	mg/l	2.0	0.095	10	6/20/2017 21:50	KB	d

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	30000	ug/l	0.50	0.027	1	6/17/2017 08:41	TD	n
Ethane	120	ug/l	0.10	0.0070	1	6/17/2017 08:41	TD	n
Ethene	210	ug/l	0.10	0.0090	1	6/17/2017 08:41	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740020** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW3(35)-G060717** Date Collected: 6/7/2017 10:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.016J	mg/l	0.20	0.011	1	6/17/2017 07:06	KB	M3,B,M5
Acetic Acid	0.074J	mg/l	0.10	0.012	1	6/17/2017 07:06	KB	M3,B,M5
Propionic Acid	0.013J	mg/l	0.10	0.0055	1	6/17/2017 07:06	KB	M3,M5
Formic Acid	0.054J	mg/l	0.20	0.033	1	6/17/2017 07:06	KB	B
Butyric Acid	0.0063J	mg/l	0.10	0.0055	1	6/17/2017 07:06	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/17/2017 07:06	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/17/2017 07:06	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/17/2017 07:06	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 07:06	KB	M3
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/17/2017 07:06	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	8400	ug/l	0.50	0.027	1	6/17/2017 08:54	TD	n
Ethane	15	ug/l	0.10	0.0070	1	6/17/2017 08:54	TD	n
Ethene	6.3	ug/l	0.10	0.0090	1	6/17/2017 08:54	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740021** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW1(39)-G060717** Date Collected: 6/7/2017 11:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.020J	mg/l	0.20	0.011	1	6/17/2017 14:49	KB	B
Acetic Acid	0.045J	mg/l	0.10	0.012	1	6/17/2017 14:49	KB	B
Propionic Acid	0.10 U	mg/l	0.10	0.0055	1	6/17/2017 14:49	KB	
Formic Acid	0.040J	mg/l	0.20	0.033	1	6/17/2017 14:49	KB	B
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/17/2017 14:49	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/17/2017 14:49	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/17/2017 14:49	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/17/2017 14:49	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 14:49	KB	M3,B,M5
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/17/2017 14:49	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	12000	ug/l	0.50	0.027	1	6/17/2017 09:07	TD	n
Ethane	170	ug/l	0.10	0.0070	1	6/17/2017 09:07	TD	n
Ethene	0.10 U	ug/l	0.10	0.0090	1	6/17/2017 09:07	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740022** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW1(28)-G060717** Date Collected: 6/7/2017 12:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 17:29	KB	B
Acetic Acid	7.1	mg/l	1.0	0.12	10	6/21/2017 00:30	KB	d,B
Propionic Acid	0.10 U	mg/l	0.10	0.0055	1	6/17/2017 17:29	KB	
Formic Acid	0.055J	mg/l	0.20	0.033	1	6/17/2017 17:29	KB	B
Butyric Acid	0.0059J	mg/l	0.10	0.0055	1	6/17/2017 17:29	KB	
Pyruvic Acid	0.013J	mg/l	0.10	0.0089	1	6/17/2017 17:29	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/17/2017 17:29	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/17/2017 17:29	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 17:29	KB	M3,B,M5
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/17/2017 17:29	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	16000	ug/l	0.50	0.027	1	6/17/2017 10:04	TD	n
Ethane	140	ug/l	0.10	0.0070	1	6/17/2017 10:04	TD	n
Ethene	170	ug/l	0.10	0.0090	1	6/17/2017 10:04	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740023** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW82-G060717** Date Collected: 6/7/2017 13:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 18:23	KB	B
Acetic Acid	0.065J	mg/l	0.10	0.012	1	6/17/2017 18:23	KB	B
Propionic Acid	0.10 U	mg/l	0.10	0.0055	1	6/17/2017 18:23	KB	
Formic Acid	0.084J	mg/l	0.20	0.033	1	6/17/2017 18:23	KB	B
Butyric Acid	0.0072J	mg/l	0.10	0.0055	1	6/17/2017 18:23	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/17/2017 18:23	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/17/2017 18:23	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/17/2017 18:23	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 18:23	KB	M3,B,M5
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/17/2017 18:23	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	28000	ug/l	0.50	0.027	1	6/17/2017 10:17	TD	n
Ethane	40	ug/l	0.10	0.0070	1	6/17/2017 10:17	TD	n
Ethene	0.10 U	ug/l	0.10	0.0090	1	6/17/2017 10:17	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740024** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW13-G060717** Date Collected: 6/7/2017 15:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.036J	mg/l	0.20	0.011	1	6/17/2017 19:16	KB	B
Acetic Acid	0.55	mg/l	0.10	0.012	1	6/17/2017 19:16	KB	B
Propionic Acid	0.10 U	mg/l	0.10	0.0055	1	6/17/2017 19:16	KB	
Formic Acid	0.20 U	mg/l	0.20	0.033	1	6/17/2017 19:16	KB	B
Butyric Acid	0.0083J	mg/l	0.10	0.0055	1	6/17/2017 19:16	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/17/2017 19:16	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/17/2017 19:16	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/17/2017 19:16	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 19:16	KB	M3,B,M5
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/17/2017 19:16	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	11000	ug/l	0.50	0.027	1	6/17/2017 10:29	TD	n
Ethane	45	ug/l	0.10	0.0070	1	6/17/2017 10:29	TD	n
Ethene	90	ug/l	0.10	0.0090	1	6/17/2017 10:29	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740025** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW6C-G060717** Date Collected: 6/7/2017 14:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 20:09	KB	B
Acetic Acid	0.28	mg/l	0.10	0.012	1	6/17/2017 20:09	KB	B
Propionic Acid	0.10 U	mg/l	0.10	0.0055	1	6/17/2017 20:09	KB	
Formic Acid	0.047J	mg/l	0.20	0.033	1	6/17/2017 20:09	KB	B
Butyric Acid	0.0057J	mg/l	0.10	0.0055	1	6/17/2017 20:09	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/17/2017 20:09	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/17/2017 20:09	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/17/2017 20:09	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 20:09	KB	M3,B,M5
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/17/2017 20:09	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.027	1	6/17/2017 10:42	TD	n
Ethane	55	ug/l	0.10	0.0070	1	6/17/2017 10:42	TD	n
Ethene	95	ug/l	0.10	0.0090	1	6/17/2017 10:42	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740026** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW62(36)-G060717** Date Collected: 6/7/2017 16:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/21/2017 01:23	KB	d,B
Acetic Acid	63	mg/l	10	1.2	100	6/21/2017 02:16	KB	d,B
Propionic Acid	0.48J	mg/l	1.0	0.055	10	6/21/2017 01:23	KB	d
Formic Acid	0.24	mg/l	0.20	0.033	1	6/17/2017 21:02	KB	B
Butyric Acid	4.0	mg/l	1.0	0.055	10	6/21/2017 01:23	KB	d
Pyruvic Acid	0.063J	mg/l	0.10	0.0089	1	6/17/2017 21:02	KB	M1
i-Pentanoic Acid	0.087J	mg/l	0.10	0.0098	1	6/17/2017 21:02	KB	
Pentanoic Acid	0.040J	mg/l	0.10	0.0082	1	6/17/2017 21:02	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/17/2017 21:02	KB	M3,B,M5
Hexanoic Acid	0.68	mg/l	0.20	0.0095	1	6/17/2017 21:02	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	20000	ug/l	0.50	0.027	1	6/17/2017 10:58	TD	n
Ethane	87	ug/l	0.10	0.0070	1	6/17/2017 10:58	TD	n
Ethene	160	ug/l	0.10	0.0090	1	6/17/2017 10:58	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740027** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW67-G060817** Date Collected: 6/8/2017 14:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/21/2017 03:10	KB	d,B
Acetic Acid	460	mg/l	100	12	1000	6/21/2017 04:56	KB	d,B
Propionic Acid	4.5	mg/l	1.0	0.055	10	6/21/2017 03:10	KB	d
Formic Acid	1.8J	mg/l	2.0	0.33	10	6/21/2017 03:10	KB	d,B
Butyric Acid	27	mg/l	10	0.55	100	6/21/2017 04:03	KB	d
Pyruvic Acid	0.81J	mg/l	1.0	0.089	10	6/21/2017 03:10	KB	d
i-Pentanoic Acid	0.64J	mg/l	1.0	0.098	10	6/21/2017 03:10	KB	d
Pentanoic Acid	0.37J	mg/l	1.0	0.082	10	6/21/2017 03:10	KB	d
i-Hexanoic Acid	0.15J	mg/l	0.20	0.011	1	6/17/2017 21:56	KB	M3,B,M5
Hexanoic Acid	4.2	mg/l	2.0	0.095	10	6/21/2017 03:10	KB	d

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	7000	ug/l	0.50	0.027	1	6/17/2017 11:14	TD	n
Ethane	68	ug/l	0.10	0.0070	1	6/17/2017 11:14	TD	n
Ethene	1500	ug/l	0.50	0.045	5	6/17/2017 12:12	TD	d,n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740028** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW71-G060817** Date Collected: 6/8/2017 13:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G	Analytical Method: AM23G							
Lactic Acid	20 U	mg/l	20	1.1	100	6/21/2017 06:43	KB	d,B
Acetic Acid	380	mg/l	100	12	1000	6/21/2017 07:36	KB	d,B
Propionic Acid	210	mg/l	100	5.5	1000	6/21/2017 07:36	KB	d
Formic Acid	20	mg/l	20	3.3	100	6/21/2017 06:43	KB	d,B
Butyric Acid	270	mg/l	100	5.5	1000	6/21/2017 07:36	KB	d
Pyruvic Acid	40	mg/l	10	0.89	100	6/21/2017 06:43	KB	d
i-Pentanoic Acid	3.6	mg/l	1.0	0.098	10	6/21/2017 05:50	KB	d
Pentanoic Acid	38	mg/l	10	0.82	100	6/21/2017 06:43	KB	d
i-Hexanoic Acid	0.80	mg/l	0.20	0.011	1	6/17/2017 22:49	KB	M3,B,M5
Hexanoic Acid	71	mg/l	20	0.95	100	6/21/2017 06:43	KB	d

RISK - PAES

Analysis Desc: AM20GAX	Analytical Method: AM20GAX							
Methane	7600	ug/l	0.50	0.027	1	6/17/2017 11:27	TD	n
Ethane	110	ug/l	0.10	0.0070	1	6/17/2017 11:27	TD	n
Ethene	550	ug/l	0.10	0.0090	1	6/17/2017 11:27	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740029** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW68-G060817** Date Collected: 6/8/2017 12:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/21/2017 08:30	KB	d,B
Acetic Acid	580	mg/l	100	12	1000	6/21/2017 10:16	KB	d,B
Propionic Acid	77	mg/l	10	0.55	100	6/21/2017 09:23	KB	d
Formic Acid	9.9	mg/l	2.0	0.33	10	6/21/2017 08:30	KB	d,B
Butyric Acid	60	mg/l	10	0.55	100	6/21/2017 09:23	KB	d
Pyruvic Acid	12	mg/l	1.0	0.089	10	6/21/2017 08:30	KB	d
i-Pentanoic Acid	2.5	mg/l	1.0	0.098	10	6/21/2017 08:30	KB	d
Pentanoic Acid	10	mg/l	1.0	0.082	10	6/21/2017 08:30	KB	d
i-Hexanoic Acid	0.69	mg/l	0.20	0.011	1	6/17/2017 23:42	KB	M3,B,M5
Hexanoic Acid	11	mg/l	2.0	0.095	10	6/21/2017 08:30	KB	d

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	6500	ug/l	0.50	0.027	1	6/17/2017 11:41	TD	n
Ethane	17	ug/l	0.10	0.0070	1	6/17/2017 11:41	TD	n
Ethene	3400	ug/l	0.50	0.045	5	6/17/2017 12:26	TD	d,n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740030** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW72-G060817** Date Collected: 6/8/2017 11:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/21/2017 11:10	KB	d,B
Acetic Acid	390	mg/l	100	12	1000	6/21/2017 12:56	KB	d,B
Propionic Acid	240	mg/l	100	5.5	1000	6/21/2017 12:56	KB	d
Formic Acid	17	mg/l	2.0	0.33	10	6/21/2017 11:10	KB	d,B
Butyric Acid	110	mg/l	10	0.55	100	6/21/2017 12:03	KB	d
Pyruvic Acid	17	mg/l	1.0	0.089	10	6/21/2017 11:10	KB	d
i-Pentanoic Acid	3.3	mg/l	1.0	0.098	10	6/21/2017 11:10	KB	d
Pentanoic Acid	42	mg/l	10	0.82	100	6/21/2017 12:03	KB	d
i-Hexanoic Acid	0.55	mg/l	0.20	0.011	1	6/18/2017 00:36	KB	M3,B,M5
Hexanoic Acid	28	mg/l	2.0	0.095	10	6/21/2017 11:10	KB	d

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	8500	ug/l	0.50	0.027	1	6/17/2017 11:57	TD	n
Ethane	9.9	ug/l	0.10	0.0070	1	6/17/2017 11:57	TD	n
Ethene	690	ug/l	0.10	0.0090	1	6/17/2017 11:57	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740031** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW77-G060817** Date Collected: 6/8/2017 10:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 01:29	KB	B
Acetic Acid	28	mg/l	1.0	0.12	10	6/21/2017 17:26	KB	d,B
Propionic Acid	19	mg/l	1.0	0.055	10	6/21/2017 17:26	KB	d
Formic Acid	1.5J	mg/l	2.0	0.33	10	6/21/2017 17:26	KB	d,B
Butyric Acid	4.6	mg/l	1.0	0.055	10	6/21/2017 17:26	KB	d
Pyruvic Acid	5.3	mg/l	1.0	0.089	10	6/21/2017 17:26	KB	d
i-Pentanoic Acid	1.0 U	mg/l	1.0	0.098	10	6/21/2017 17:26	KB	d
Pentanoic Acid	4.5	mg/l	1.0	0.082	10	6/21/2017 17:26	KB	d
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 01:29	KB	M3,B,M5
Hexanoic Acid	3.3	mg/l	2.0	0.095	10	6/21/2017 17:26	KB	d

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	5400	ug/l	0.50	0.027	1	6/19/2017 09:01	TD	B,n
Ethane	41	ug/l	0.10	0.0070	1	6/19/2017 09:01	TD	n
Ethene	210	ug/l	0.10	0.0090	1	6/19/2017 09:01	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740032** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW78-G060817** Date Collected: 6/8/2017 11:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G	Analytical Method: AM23G							
Lactic Acid	0.12J	mg/l	0.20	0.011	1	6/18/2017 02:22	KB	B
Acetic Acid	270	mg/l	10	1.2	100	6/21/2017 19:13	KB	d,B
Propionic Acid	2.0	mg/l	1.0	0.055	10	6/21/2017 18:20	KB	d
Formic Acid	0.56J	mg/l	2.0	0.33	10	6/21/2017 18:20	KB	d,B
Butyric Acid	7.0	mg/l	1.0	0.055	10	6/21/2017 18:20	KB	d
Pyruvic Acid	0.20J	mg/l	1.0	0.089	10	6/21/2017 18:20	KB	d
i-Pentanoic Acid	0.28	mg/l	0.10	0.0098	1	6/18/2017 02:22	KB	
Pentanoic Acid	0.090J	mg/l	0.10	0.0082	1	6/18/2017 02:22	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 02:22	KB	M3,B,M5
Hexanoic Acid	0.52	mg/l	0.20	0.0095	1	6/18/2017 02:22	KB	

RISK - PAES

Analysis Desc: AM20GAX	Analytical Method: AM20GAX							
Methane	23000	ug/l	0.50	0.027	1	6/19/2017 09:15	TD	B,n
Ethane	1.8	ug/l	0.10	0.0070	1	6/19/2017 09:15	TD	n
Ethene	0.10 U	ug/l	0.10	0.0090	1	6/19/2017 09:15	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740033** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW76-G060817** Date Collected: 6/8/2017 13:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/21/2017 20:06	KB	d,B
Acetic Acid	800	mg/l	100	12	1000	6/21/2017 21:53	KB	d,B
Propionic Acid	53	mg/l	10	0.55	100	6/21/2017 21:00	KB	d
Formic Acid	14	mg/l	2.0	0.33	10	6/21/2017 20:06	KB	d,B
Butyric Acid	110	mg/l	10	0.55	100	6/21/2017 21:00	KB	d
Pyruvic Acid	15	mg/l	1.0	0.089	10	6/21/2017 20:06	KB	d
i-Pentanoic Acid	3.2	mg/l	0.10	0.0098	1	6/18/2017 03:16	KB	
Pentanoic Acid	12	mg/l	1.0	0.082	10	6/21/2017 20:06	KB	d
i-Hexanoic Acid	0.61	mg/l	0.20	0.011	1	6/18/2017 03:16	KB	M3,B,M5
Hexanoic Acid	31	mg/l	2.0	0.095	10	6/21/2017 20:06	KB	d

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	12000	ug/l	0.50	0.027	1	6/19/2017 09:27	TD	B,n
Ethane	91	ug/l	0.10	0.0070	1	6/19/2017 09:27	TD	n
Ethene	5800	ug/l	0.50	0.045	5	6/19/2017 10:01	TD	d,n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740034** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-EB002-G060817** Date Collected: 6/8/2017 15:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 04:09	KB	B
Acetic Acid	0.084J	mg/l	0.10	0.012	1	6/18/2017 04:09	KB	B
Propionic Acid	0.0070J	mg/l	0.10	0.0055	1	6/18/2017 04:09	KB	
Formic Acid	0.20 U	mg/l	0.20	0.033	1	6/18/2017 04:09	KB	B
Butyric Acid	0.011J	mg/l	0.10	0.0055	1	6/18/2017 04:09	KB	
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/18/2017 04:09	KB	M1
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/18/2017 04:09	KB	
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/18/2017 04:09	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 04:09	KB	M3,B,M5
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/18/2017 04:09	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	0.060J	ug/l	0.50	0.027	1	6/19/2017 11:37	TD	n
Ethane	0.10 U	ug/l	0.10	0.0070	1	6/19/2017 11:37	TD	n
Ethene	0.10 U	ug/l	0.10	0.0090	1	6/19/2017 11:37	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740035** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW12-G060717** Date Collected: 6/7/2017 16:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/21/2017 22:46	KB	d,B
Acetic Acid	97	mg/l	10	1.2	100	6/21/2017 23:40	KB	d,B
Propionic Acid	1.3	mg/l	1.0	0.055	10	6/21/2017 22:46	KB	d
Formic Acid	0.51J	mg/l	2.0	0.33	10	6/21/2017 22:46	KB	d,B
Butyric Acid	1.2	mg/l	1.0	0.055	10	6/21/2017 22:46	KB	d
Pyruvic Acid	1.0 U	mg/l	1.0	0.089	10	6/21/2017 22:46	KB	d
i-Pentanoic Acid	0.22	mg/l	0.10	0.0098	1	6/18/2017 05:02	KB	
Pentanoic Acid	0.037J	mg/l	0.10	0.0082	1	6/18/2017 05:02	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 05:02	KB	M3,B,M5
Hexanoic Acid	0.034J	mg/l	0.20	0.0095	1	6/18/2017 05:02	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	17000	ug/l	0.50	0.027	1	6/19/2017 11:50	TD	n
Ethane	19	ug/l	0.10	0.0070	1	6/19/2017 11:50	TD	n
Ethene	2.1	ug/l	0.10	0.0090	1	6/19/2017 11:50	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740036** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW59(29)-G060717** Date Collected: 6/7/2017 13:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/22/2017 00:33	KB	d,H1,B
Acetic Acid	110	mg/l	10	1.2	100	6/22/2017 01:26	KB	d,H1,B
Propionic Acid	2.9	mg/l	1.0	0.055	10	6/22/2017 00:33	KB	d,H1
Formic Acid	2.2	mg/l	2.0	0.33	10	6/22/2017 00:33	KB	d,H1,B
Butyric Acid	4.4	mg/l	1.0	0.055	10	6/22/2017 00:33	KB	d,H1
Pyruvic Acid	0.34J	mg/l	1.0	0.089	10	6/22/2017 00:33	KB	d,H1
i-Pentanoic Acid	0.33	mg/l	0.10	0.0098	1	6/18/2017 05:56	KB	
Pentanoic Acid	0.23	mg/l	0.10	0.0082	1	6/18/2017 05:56	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 05:56	KB	M3,B,M5
Hexanoic Acid	0.33	mg/l	0.20	0.0095	1	6/18/2017 05:56	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	23000	ug/l	0.50	0.027	1	6/19/2017 12:02	TD	n
Ethane	260	ug/l	0.10	0.0070	1	6/19/2017 12:02	TD	n
Ethene	1800	ug/l	0.50	0.045	5	6/21/2017 14:37	TD	d,n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740037** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW59(29)-G060717R** Date Collected: 6/7/2017 13:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/22/2017 02:20	KB	d,H1,B
Acetic Acid	110	mg/l	10	1.2	100	6/22/2017 03:13	KB	d,H1,B
Propionic Acid	2.8	mg/l	1.0	0.055	10	6/22/2017 02:20	KB	d,H1
Formic Acid	2.2	mg/l	2.0	0.33	10	6/22/2017 02:20	KB	d,H1,B
Butyric Acid	4.5	mg/l	1.0	0.055	10	6/22/2017 02:20	KB	d,H1
Pyruvic Acid	0.34J	mg/l	1.0	0.089	10	6/22/2017 02:20	KB	d,H1
i-Pentanoic Acid	0.33	mg/l	0.10	0.0098	1	6/18/2017 06:49	KB	
Pentanoic Acid	0.24	mg/l	0.10	0.0082	1	6/18/2017 06:49	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 06:49	KB	M3,B,M5
Hexanoic Acid	0.37	mg/l	0.20	0.0095	1	6/18/2017 06:49	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	23000	ug/l	0.50	0.027	1	6/19/2017 12:15	TD	n
Ethane	260	ug/l	0.10	0.0070	1	6/19/2017 12:15	TD	n
Ethene	1600	ug/l	0.50	0.045	5	6/21/2017 14:49	TD	d,n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740038** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-OW4(35)-G060717** Date Collected: 6/7/2017 08:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/22/2017 04:06	KB	d,H1,B
Acetic Acid	500	mg/l	100	12	1000	6/22/2017 05:56	KB	d,H1,B
Propionic Acid	170	mg/l	100	5.5	1000	6/22/2017 05:56	KB	d,H1
Formic Acid	5.5J	mg/l	20	3.3	100	6/22/2017 05:03	KB	d,H1,B
Butyric Acid	39	mg/l	10	0.55	100	6/22/2017 05:03	KB	d,H1
Pyruvic Acid	28	mg/l	10	0.89	100	6/22/2017 05:03	KB	d,H1
i-Pentanoic Acid	5.2	mg/l	1.0	0.098	10	6/22/2017 04:06	KB	d,H1
Pentanoic Acid	14	mg/l	1.0	0.082	10	6/22/2017 04:06	KB	d,H1
i-Hexanoic Acid	0.70	mg/l	0.20	0.011	1	6/18/2017 07:42	KB	M3,B,M5
Hexanoic Acid	9.8	mg/l	2.0	0.095	10	6/22/2017 04:06	KB	d,H1

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	23000	ug/l	0.50	0.027	1	6/19/2017 12:27	TD	n
Ethane	39	ug/l	0.10	0.0070	1	6/19/2017 12:27	TD	n
Ethene	8.3	ug/l	0.10	0.0090	1	6/19/2017 12:27	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740039** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW81(27)-G060717** Date Collected: 6/7/2017 10:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/22/2017 06:50	KB	d,H1,B
Acetic Acid	290	mg/l	10	1.2	100	6/22/2017 07:43	KB	d,H1,B
Propionic Acid	5.5J	mg/l	10	0.55	100	6/22/2017 07:43	KB	d,H1
Formic Acid	5.4	mg/l	2.0	0.33	10	6/22/2017 06:50	KB	d,H1,B
Butyric Acid	30	mg/l	10	0.55	100	6/22/2017 07:43	KB	d,H1
Pyruvic Acid	3.2	mg/l	1.0	0.089	10	6/22/2017 06:50	KB	d,H1
i-Pentanoic Acid	0.76J	mg/l	1.0	0.098	10	6/22/2017 06:50	KB	d,H1
Pentanoic Acid	1.4	mg/l	1.0	0.082	10	6/22/2017 06:50	KB	d,H1
i-Hexanoic Acid	0.94	mg/l	0.20	0.011	1	6/18/2017 08:35	KB	M3,B,M5
Hexanoic Acid	9.4	mg/l	2.0	0.095	10	6/22/2017 06:50	KB	d,H1

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	22000	ug/l	0.50	0.027	1	6/19/2017 12:39	TD	n
Ethane	320	ug/l	0.10	0.0070	1	6/19/2017 12:39	TD	n
Ethene	2100	ug/l	0.50	0.045	5	6/21/2017 15:02	TD	d,n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740040** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-PM2-G060717** Date Collected: 6/7/2017 15:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 09:29	KB	B
Acetic Acid	8.7	mg/l	1.0	0.12	10	6/22/2017 08:36	KB	d,H1,B
Propionic Acid	1.6	mg/l	1.0	0.055	10	6/22/2017 08:36	KB	d,H1
Formic Acid	0.13J	mg/l	0.20	0.033	1	6/18/2017 09:29	KB	B
Butyric Acid	0.10	mg/l	0.10	0.0055	1	6/18/2017 09:29	KB	
Pyruvic Acid	0.20J	mg/l	1.0	0.089	10	6/22/2017 08:36	KB	d,H1
i-Pentanoic Acid	0.052J	mg/l	0.10	0.0098	1	6/18/2017 09:29	KB	
Pentanoic Acid	0.078J	mg/l	0.10	0.0082	1	6/18/2017 09:29	KB	
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 09:29	KB	M3,B,M5
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/18/2017 09:29	KB	

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.027	1	6/19/2017 12:56	TD	n
Ethane	550	ug/l	0.10	0.0070	1	6/19/2017 12:56	TD	n
Ethene	3700	ug/l	0.50	0.045	5	6/21/2017 15:14	TD	d,n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740041** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-PM3-G060717** Date Collected: 6/7/2017 16:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G	Analytical Method: AM23G							
Lactic Acid	20 U	mg/l	20	1.1	100	6/22/2017 17:09	KB	d,H1
Acetic Acid	840	mg/l	100	12	1000	6/22/2017 18:03	KB	d,H1,B
Propionic Acid	120	mg/l	10	0.55	100	6/22/2017 17:09	KB	d,H1
Formic Acid	14J	mg/l	20	3.3	100	6/22/2017 17:09	KB	d,H1
Butyric Acid	150	mg/l	100	5.5	1000	6/22/2017 18:03	KB	d,H1
Pyruvic Acid	50	mg/l	10	0.89	100	6/22/2017 17:09	KB	d,H1
i-Pentanoic Acid	4.1	mg/l	1.0	0.098	10	6/22/2017 16:16	KB	d,H1
Pentanoic Acid	33	mg/l	1.0	0.082	10	6/22/2017 16:16	KB	d,H1
i-Hexanoic Acid	0.90	mg/l	0.20	0.011	1	6/18/2017 17:08	KB	
Hexanoic Acid	36	mg/l	2.0	0.095	10	6/22/2017 16:16	KB	d,H1

RISK - PAES

Analysis Desc: AM20GAX	Analytical Method: AM20GAX							
Methane	19000	ug/l	0.50	0.027	1	6/19/2017 13:08	TD	n
Ethane	240	ug/l	0.10	0.0070	1	6/19/2017 13:08	TD	n
Ethene	5300	ug/l	0.50	0.045	5	6/21/2017 15:28	TD	d,n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740042** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW24(55.4)-G060717** Date Collected: 6/7/2017 08:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/22/2017 18:56	KB	d,H1
Acetic Acid	59	mg/l	10	1.2	100	6/22/2017 19:49	KB	d,H1,B
Propionic Acid	91	mg/l	10	0.55	100	6/22/2017 19:49	KB	d,H1
Formic Acid	0.35J	mg/l	2.0	0.33	10	6/22/2017 18:56	KB	d,H1
Butyric Acid	0.31J	mg/l	1.0	0.055	10	6/22/2017 18:56	KB	d,H1
Pyruvic Acid	0.63J	mg/l	1.0	0.089	10	6/22/2017 18:56	KB	d,H1
i-Pentanoic Acid	0.42	mg/l	0.10	0.0098	1	6/18/2017 19:48	KB	M3,M5
Pentanoic Acid	0.28	mg/l	0.10	0.0082	1	6/18/2017 19:48	KB	M3,D3,M5
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 19:48	KB	
Hexanoic Acid	0.056J	mg/l	0.20	0.0095	1	6/18/2017 19:48	KB	M3,D3,M5

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	11000	ug/l	0.50	0.027	1	6/19/2017 13:28	TD	n
Ethane	24	ug/l	0.10	0.0070	1	6/19/2017 13:28	TD	n
Ethene	87	ug/l	0.10	0.0090	1	6/19/2017 13:28	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740043** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW14-G060717** Date Collected: 6/7/2017 09:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	2.0 U	mg/l	2.0	0.11	10	6/22/2017 20:43	KB	d,H1
Acetic Acid	48	mg/l	1.0	0.12	10	6/22/2017 20:43	KB	d,H1,B
Propionic Acid	0.34J	mg/l	1.0	0.055	10	6/22/2017 20:43	KB	d,H1
Formic Acid	0.15J	mg/l	0.20	0.033	1	6/18/2017 20:42	KB	M3,D3,M5
Butyric Acid	0.10	mg/l	0.10	0.0055	1	6/18/2017 20:42	KB	M3,M5
Pyruvic Acid	0.041J	mg/l	0.10	0.0089	1	6/18/2017 20:42	KB	M3,D3,M1,M5
i-Pentanoic Acid	0.077J	mg/l	0.10	0.0098	1	6/18/2017 20:42	KB	M3,M5
Pentanoic Acid	0.027J	mg/l	0.10	0.0082	1	6/18/2017 20:42	KB	M3,D3,M5
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 20:42	KB	
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/18/2017 20:42	KB	M3,D3,M5

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	10000	ug/l	0.50	0.027	1	6/19/2017 13:43	TD	n
Ethane	200	ug/l	0.10	0.0070	1	6/19/2017 13:43	TD	n
Ethene	290	ug/l	0.10	0.0090	1	6/19/2017 13:43	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740044** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW20(51)-G060717** Date Collected: 6/7/2017 11:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 21:35	KB	M3,M5
Acetic Acid	0.37	mg/l	0.10	0.012	1	6/18/2017 21:35	KB	M3,B,M5
Propionic Acid	0.0096J	mg/l	0.10	0.0055	1	6/18/2017 21:35	KB	M3,M5
Formic Acid	0.057J	mg/l	0.20	0.033	1	6/18/2017 21:35	KB	M3,D3,M5
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/18/2017 21:35	KB	M3,M5
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/18/2017 21:35	KB	M3,D3,M1,M5
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/18/2017 21:35	KB	M3,M5
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/18/2017 21:35	KB	M3,D3,M5
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 21:35	KB	
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/18/2017 21:35	KB	M3,D3,M5

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	25000	ug/l	0.50	0.027	1	6/19/2017 13:56	TD	n
Ethane	120	ug/l	0.10	0.0070	1	6/19/2017 13:56	TD	n
Ethene	0.025J	ug/l	0.10	0.0090	1	6/19/2017 13:56	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740045** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW20(35)-G060717** Date Collected: 6/7/2017 13:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.021J	mg/l	0.20	0.011	1	6/18/2017 22:28	KB	M3,M5
Acetic Acid	0.30	mg/l	0.10	0.012	1	6/18/2017 22:28	KB	M3,B,M5
Propionic Acid	0.012J	mg/l	0.10	0.0055	1	6/18/2017 22:28	KB	M3,M5
Formic Acid	0.061J	mg/l	0.20	0.033	1	6/18/2017 22:28	KB	M3,D3,M5
Butyric Acid	0.0070J	mg/l	0.10	0.0055	1	6/18/2017 22:28	KB	M3,M5
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/18/2017 22:28	KB	D3,M3,M1,M5
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/18/2017 22:28	KB	M3,M5
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/18/2017 22:28	KB	M3,D3,M5
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 22:28	KB	
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/18/2017 22:28	KB	M3,D3,M5

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.027	1	6/19/2017 14:08	TD	n
Ethane	110	ug/l	0.10	0.0070	1	6/19/2017 14:08	TD	n
Ethene	0.079J	ug/l	0.10	0.0090	1	6/19/2017 14:08	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740046** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW20(35)-G060717R** Date Collected: 6/7/2017 13:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 23:21	KB	M3,M5
Acetic Acid	0.26	mg/l	0.10	0.012	1	6/18/2017 23:21	KB	M3,B,M5
Propionic Acid	0.0086J	mg/l	0.10	0.0055	1	6/18/2017 23:21	KB	M3,M5
Formic Acid	0.045J	mg/l	0.20	0.033	1	6/18/2017 23:21	KB	M3,D3,M5
Butyric Acid	0.10 U	mg/l	0.10	0.0055	1	6/18/2017 23:21	KB	M3,M5
Pyruvic Acid	0.10 U	mg/l	0.10	0.0089	1	6/18/2017 23:21	KB	M3,D3,M1,M5
i-Pentanoic Acid	0.10 U	mg/l	0.10	0.0098	1	6/18/2017 23:21	KB	M3,M5
Pentanoic Acid	0.10 U	mg/l	0.10	0.0082	1	6/18/2017 23:21	KB	M3,D3,M5
i-Hexanoic Acid	0.20 U	mg/l	0.20	0.011	1	6/18/2017 23:21	KB	
Hexanoic Acid	0.20 U	mg/l	0.20	0.0095	1	6/18/2017 23:21	KB	M3,D3,M5

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.027	1	6/19/2017 14:21	TD	n
Ethane	120	ug/l	0.10	0.0070	1	6/19/2017 14:21	TD	n
Ethene	0.095J	ug/l	0.10	0.0090	1	6/19/2017 14:21	TD	n



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ANALYTICAL RESULTS

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID: **229740047** Date Received: 6/12/2017 07:30 Matrix: Water
 Sample ID: **ATR-MW15-G060617** Date Collected: 6/6/2017 10:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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EDonors - PAES

Analysis Desc: AM23G		Analytical Method: AM23G						
Lactic Acid	20 U	mg/l	20	1.1	100	6/22/2017 23:23	KB	d,H1
Acetic Acid	850	mg/l	100	12	1000	6/23/2017 00:16	KB	d,H1,B
Propionic Acid	250	mg/l	100	5.5	1000	6/23/2017 00:16	KB	d,H1
Formic Acid	3.6J	mg/l	20	3.3	100	6/22/2017 23:23	KB	d,H1
Butyric Acid	55	mg/l	10	0.55	100	6/22/2017 23:23	KB	d,H1
Pyruvic Acid	39	mg/l	1.0	0.089	10	6/22/2017 22:29	KB	d,H1
i-Pentanoic Acid	3.3	mg/l	1.0	0.098	10	6/22/2017 22:29	KB	d,H1
Pentanoic Acid	25	mg/l	1.0	0.082	10	6/22/2017 22:29	KB	d,H1
i-Hexanoic Acid	0.31	mg/l	0.20	0.011	1	6/19/2017 00:15	KB	
Hexanoic Acid	7.6	mg/l	2.0	0.095	10	6/22/2017 22:29	KB	d,H1

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	20000	ug/l	0.50	0.027	1	6/19/2017 14:33	TD	n
Ethane	96	ug/l	0.10	0.0070	1	6/19/2017 14:33	TD	n
Ethene	4200	ug/l	0.50	0.045	5	6/21/2017 15:53	TD	d,n



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ANALYTICAL RESULTS QUALIFIERS

Workorder: 22974 TFS ROCHESTER / 3359151040

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quantitation 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).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.
H1	The sample was prepared or the analysis was conducted outside the method specific holding time.
D3	The matrix spike duplicate relative percent difference (RPD) exceeded laboratory control limits.
B	The analyte was detected in the associated blank.
d	The analyte concentration was determined from a dilution.
M1	The continuing calibration verification recovery was outside laboratory control limits.
M5	The matrix spike duplicate sample recovery was outside laboratory control limits.
M3	The matrix spike sample recovery was outside laboratory control limits.



QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: DISG/6175 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 229740001, 229740002, 229740003, 229740004, 229740005, 229740006, 229740007, 229740008, 229740009, 229740010, 229740011, 229740012, 229740013, 229740014

METHOD BLANK: 49398

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.50 U	0.50	n
Ethane	ug/l	0.10 U	0.10	n
Ethene	ug/l	0.10 U	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 49399 49400

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	720	730	96	98	80-120	2.1	20	n
Ethane	ug/l	38	38	40	101	105	80-120	3.9	20	n
Ethene	ug/l	35	36	37	101	105	80-120	3.9	20	n



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: EDON/3401 Analysis Method: AM23G
 QC Batch Method: AM23G

Associated Lab Samples: 229740001, 229740002, 229740003, 229740004, 229740005, 229740006, 229740007, 229740008, 229740009,
 229740010, 229740011, 229740012, 229740013, 229740014, 229740015, 229740016, 229740017, 229740018,
 229740019, 229740020

METHOD BLANK: 49401

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.039J	0.20	M3,B,M5
Acetic Acid	mg/l	0.023J	0.10	M3,B,M5
Propionic Acid	mg/l	0.10 U	0.10	M3,M5
Formic Acid	mg/l	0.078J	0.20	B
Butyric Acid	mg/l	0.10 U	0.10	
Pyruvic Acid	mg/l	0.10 U	0.10	M1
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	M3
Hexanoic Acid	mg/l	0.20 U	0.20	

LABORATORY CONTROL SAMPLE: 49402

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.8	93	70-130	M3,B,M5
Acetic Acid	mg/l	2	2.1	104	70-130	M3,B,M5
Propionic Acid	mg/l	2	2.0	98	70-130	M3,M5
Formic Acid	mg/l	2	1.8	89	70-130	B
Butyric Acid	mg/l	2	2.0	98	70-130	
Pyruvic Acid	mg/l	2	2.2	111	70-130	M1
i-Pentanoic Acid	mg/l	2	1.9	96	70-130	
Pentanoic Acid	mg/l	2	1.8	89	70-130	
i-Hexanoic Acid	mg/l	2	2.0	98	70-130	M3
Hexanoic Acid	mg/l	2	1.6	81	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 49403 49404 Original: 229740001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	RPD	Qualifiers
EDonors											



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 49403 49404 Original: 229740001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Lactic Acid	mg/l	0.041	2	1.0	0.90	48	43	70-130	11	30	M3,B,M5
Acetic Acid	mg/l	83	2	0.10 U	0.10 U	-4150	-4150	70-130	0	30	M3,B,M5
Propionic Acid	mg/l	16	2	30	30	709	687	70-130	3.2	30	M3,M5
Formic Acid	mg/l	0.84	2	2.8	2.8	96	96	70-130	0	30	B
Butyric Acid	mg/l	0.74	2	3.0	3.0	114	114	70-130	0	30	
Pyruvic Acid	mg/l	0.89	2	3.3	3.4	118	125	70-130	5.8	30	M1
i-Pentanoic Acid	mg/l	0.5	2	2.7	2.7	111	109	70-130	1.8	30	
Pentanoic Acid	mg/l	0.28	2	2.6	2.5	117	111	70-130	5.3	30	
i-Hexanoic Acid	mg/l	0	2	2.6	2.4	131	121	70-130	7.9	30	M3
Hexanoic Acid	mg/l	0	2	2.5	2.3	125	114	70-130	9.2	30	



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: EDON/3402 Analysis Method: AM23G
 QC Batch Method: AM23G

Associated Lab Samples: 229740021, 229740022, 229740023, 229740024, 229740025, 229740026, 229740027, 229740028, 229740029,
 229740030, 229740031, 229740032, 229740033, 229740034, 229740035, 229740036, 229740037, 229740038,
 229740039, 229740040

METHOD BLANK: 49405

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.038J	0.20	B
Acetic Acid	mg/l	0.023J	0.10	B
Propionic Acid	mg/l	0.10 U	0.10	
Formic Acid	mg/l	0.074J	0.20	B
Butyric Acid	mg/l	0.10 U	0.10	
Pyruvic Acid	mg/l	0.10 U	0.10	M1
i-Pentanoic Acid	mg/l	0.10 U	0.10	
Pentanoic Acid	mg/l	0.10 U	0.10	
i-Hexanoic Acid	mg/l	0.047J	0.20	M3,B,M5
Hexanoic Acid	mg/l	0.20 U	0.20	

LABORATORY CONTROL SAMPLE: 49406

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.8	93	70-130	B
Acetic Acid	mg/l	2	2.1	105	70-130	B
Propionic Acid	mg/l	2	2.0	98	70-130	
Formic Acid	mg/l	2	1.8	89	70-130	B
Butyric Acid	mg/l	2	2.0	99	70-130	
Pyruvic Acid	mg/l	2	2.2	111	70-130	M1
i-Pentanoic Acid	mg/l	2	1.9	97	70-130	
Pentanoic Acid	mg/l	2	1.8	93	70-130	
i-Hexanoic Acid	mg/l	2	2.4	118	70-130	M3,B,M5
Hexanoic Acid	mg/l	2	1.7	87	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 49407 49408 Original: 229740021

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Qualifiers
EDonors										



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 49407 49408 Original: 229740021

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Lactic Acid	mg/l	0.02	2	1.9	1.9	94	94	70-130	0	30	B
Acetic Acid	mg/l	0.045	2	2.2	2.2	108	108	70-130	0	30	B
Propionic Acid	mg/l	0.003	2	2.0	2.0	101	101	70-130	0	30	
Formic Acid	mg/l	0.04	2	1.9	1.9	92	92	70-130	0	30	B
Butyric Acid	mg/l	0.0038	2	2.1	2.1	105	105	70-130	0	30	
Pyruvic Acid	mg/l	0	2	2.2	2.3	112	113	70-130	0.89	30	M1
i-Pentanoic Acid	mg/l	0	2	2.1	2.1	105	105	70-130	0	30	
Pentanoic Acid	mg/l	0	2	2.0	2.0	102	102	70-130	0	30	
i-Hexanoic Acid	mg/l	0	2	2.8	2.8	140	140	70-130	0	30	M3,B,M5
Hexanoic Acid	mg/l	0	2	2.0	2.0	100	103	70-130	3	30	



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: EDON/3403 Analysis Method: AM23G
 QC Batch Method: AM23G
 Associated Lab Samples: 229740041, 229740042, 229740043, 229740044, 229740045, 229740046, 229740047

METHOD BLANK: 49413

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.20 U	0.20	M3,M5
Acetic Acid	mg/l	0.021J	0.10	M3,B,M5
Propionic Acid	mg/l	0.10 U	0.10	M3,M5
Formic Acid	mg/l	0.20 U	0.20	M3,D3,M5
Butyric Acid	mg/l	0.10 U	0.10	M3,M5
Pyruvic Acid	mg/l	0.10 U	0.10	M3,D3,M1,M5
i-Pentanoic Acid	mg/l	0.10 U	0.10	M3,M5
Pentanoic Acid	mg/l	0.10 U	0.10	M3,D3,M5
i-Hexanoic Acid	mg/l	0.20 U	0.20	
Hexanoic Acid	mg/l	0.20 U	0.20	M3,D3,M5

LABORATORY CONTROL SAMPLE: 49414

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.8	92	70-130	M3,M5
Acetic Acid	mg/l	2	2.1	105	70-130	M3,B,M5
Propionic Acid	mg/l	2	1.9	97	70-130	M3,M5
Formic Acid	mg/l	2	1.8	88	70-130	M3,D3,M5
Butyric Acid	mg/l	2	2.0	98	70-130	M3,M5
Pyruvic Acid	mg/l	2	2.2	110	70-130	M3,D3,M1,M5
i-Pentanoic Acid	mg/l	2	2.0	98	70-130	M3,M5
Pentanoic Acid	mg/l	2	1.9	95	70-130	M3,D3,M5
i-Hexanoic Acid	mg/l	2	2.3	116	70-130	
Hexanoic Acid	mg/l	2	1.8	91	70-130	M3,D3,M5

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 49415 49416 Original: 229740041

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	Max RPD	Max RPD	Qualifiers
EDonors											
Lactic Acid	mg/l	0.58	2	0.20 U	0.20 U	-29	-29	70-130	0	30	M3,M5



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 49415 49416 Original: 229740041

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acetic Acid	mg/l	840	2	0.10 U	0.10 U	-41900	-41900	70-130	0	30	M3,B,M5
Propionic Acid	mg/l	120	2	0.10 U	0.10 U	-6100	-6100	70-130	0	30	M3,M5
Formic Acid	mg/l	14	2	13	13	-66	-73	70-130	-10	30	M3,D3,M5
Butyric Acid	mg/l	150	2	0.10 U	0.10 U	-7360	-7360	70-130	0	30	M3,M5
Pyruvic Acid	mg/l	50	2	30	30	-982	-971	70-130	-1.1	30	M3,D3,M1,M5
i-Pentanoic Acid	mg/l	4.1	2	8.1	7.2	200	155	70-130	25	30	M3,M5
Pentanoic Acid	mg/l	33	2	32	32	-20	-36	70-130	-57	30	M3,D3,M5
i-Hexanoic Acid	mg/l	0.9	2	3.0	2.9	106	102	70-130	3.8	30	
Hexanoic Acid	mg/l	36	2	29	29	-373	-375	70-130	-0.5	30	M3,D3,M5



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: DISG/6176 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 229740015, 229740016, 229740017, 229740018, 229740019, 229740020, 229740021, 229740022, 229740023, 229740024, 229740025, 229740026, 229740027, 229740028, 229740029, 229740030

METHOD BLANK: 49423

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.50 U	0.50	n
Ethane	ug/l	0.10 U	0.10	n
Ethene	ug/l	0.10 U	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 49425 49427

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	860	840	114	112	80-120	1.8	20	n
Ethane	ug/l	38	43	43	112	113	80-120	0.89	20	n
Ethene	ug/l	35	40	40	113	114	80-120	0.88	20	n



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: DISG/6177 Analysis Method: AM20GAX
 QC Batch Method: AM20GAX
 Associated Lab Samples: 229740031, 229740032, 229740033

METHOD BLANK: 49435

Parameter	Units	Blank Result	Reporting Limit Qualifiers
RISK			
Methane	ug/l	0.031J	0.50 B,n
Ethane	ug/l	0.10 U	0.10 n
Ethene	ug/l	0.10 U	0.10 n

LABORATORY CONTROL SAMPLE & LCSD: 49437 49439

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	810	840	108	113	80-120	4.5	20	B,n
Ethane	ug/l	38	39	39	103	103	80-120	0	20	n
Ethene	ug/l	35	36	36	103	103	80-120	0	20	n



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: DISG/6178 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 229740034, 229740035, 229740036, 229740037, 229740038, 229740039, 229740040, 229740041, 229740042, 229740043, 229740044, 229740045, 229740046, 229740047

METHOD BLANK: 49441

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.50 U	0.50	n
Ethane	ug/l	0.10 U	0.10	n
Ethene	ug/l	0.10 U	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 49443 49445

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	810	840	108	113	80-120	4.5	20	n
Ethane	ug/l	38	43	43	114	112	80-120	1.8	20	n
Ethene	ug/l	35	40	40	115	113	80-120	1.8	20	n



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: EDON/3407 Analysis Method: AM23G
 QC Batch Method: AM23G
 Associated Lab Samples: 229740001, 229740003, 229740004, 229740007, 229740008, 229740011, 229740012, 229740015, 229740016

METHOD BLANK: 49483

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.039J	0.20	B
Acetic Acid	mg/l	0.024J	0.10	B
Propionic Acid	mg/l	0.10	0.10	U
Formic Acid	mg/l	0.078J	0.20	B
Butyric Acid	mg/l	0.10	0.10	U
Pyruvic Acid	mg/l	0.10	0.10	U
i-Pentanoic Acid	mg/l	0.10	0.10	U
Pentanoic Acid	mg/l	0.10	0.10	U

LABORATORY CONTROL SAMPLE: 49484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.9	93	70-130	B
Acetic Acid	mg/l	2	2.1	105	70-130	B
Propionic Acid	mg/l	2	2.0	98	70-130	
Formic Acid	mg/l	2	1.8	89	70-130	B
Butyric Acid	mg/l	2	2.0	99	70-130	
Pyruvic Acid	mg/l	2	2.1	106	70-130	
i-Pentanoic Acid	mg/l	2	1.9	96	70-130	
Pentanoic Acid	mg/l	2	1.8	90	70-130	



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: DISG/6184 Analysis Method: AM20GAX
 QC Batch Method: AM20GAX
 Associated Lab Samples: 229740036, 229740037, 229740039, 229740040, 229740041, 229740047

METHOD BLANK: 49485

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Ethene	ug/l	0.10 U	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 49487 49489

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Ethene	ug/l	35	40	41	113	116	80-120	2.6	20	n



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: EDON/3409 Analysis Method: AM23G
 QC Batch Method: AM23G
 Associated Lab Samples: 229740017, 229740019, 229740022, 229740026, 229740027, 229740028, 229740029, 229740030

METHOD BLANK: 49518

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.038J	0.20	B
Acetic Acid	mg/l	0.027J	0.10	B
Propionic Acid	mg/l	0.10	0.10	
Formic Acid	mg/l	0.077J	0.20	B
Butyric Acid	mg/l	0.10	0.10	
Pyruvic Acid	mg/l	0.10	0.10	
i-Pentanoic Acid	mg/l	0.10	0.10	
Pentanoic Acid	mg/l	0.10	0.10	
Hexanoic Acid	mg/l	0.20	0.20	

LABORATORY CONTROL SAMPLE: 49519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.9	93	70-130	B
Acetic Acid	mg/l	2	2.1	105	70-130	B
Propionic Acid	mg/l	2	2.0	98	70-130	
Formic Acid	mg/l	2	1.8	89	70-130	B
Butyric Acid	mg/l	2	2.0	100	70-130	
Pyruvic Acid	mg/l	2	2.1	105	70-130	
i-Pentanoic Acid	mg/l	2	2.0	98	70-130	
Pentanoic Acid	mg/l	2	1.8	92	70-130	
Hexanoic Acid	mg/l	2	1.7	84	70-130	



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: EDON/3410 Analysis Method: AM23G
 QC Batch Method: AM23G
 Associated Lab Samples: 229740031, 229740032, 229740033, 229740035, 229740036, 229740037, 229740038, 229740039, 229740040

METHOD BLANK: 49520

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.040J	0.20	B
Acetic Acid	mg/l	0.029J	0.10	B
Propionic Acid	mg/l	0.10	0.10	
Formic Acid	mg/l	0.080J	0.20	B
Butyric Acid	mg/l	0.10	0.10	
Pyruvic Acid	mg/l	0.10	0.10	
i-Pentanoic Acid	mg/l	0.10	0.10	
Pentanoic Acid	mg/l	0.10	0.10	
Hexanoic Acid	mg/l	0.20	0.20	

LABORATORY CONTROL SAMPLE: 49521

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.9	93	70-130	B
Acetic Acid	mg/l	2	2.1	106	70-130	B
Propionic Acid	mg/l	2	2.0	98	70-130	
Formic Acid	mg/l	2	1.8	89	70-130	B
Butyric Acid	mg/l	2	2.0	100	70-130	
Pyruvic Acid	mg/l	2	2.0	103	70-130	
i-Pentanoic Acid	mg/l	2	2.0	98	70-130	
Pentanoic Acid	mg/l	2	1.8	93	70-130	
Hexanoic Acid	mg/l	2	1.7	85	70-130	



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QUALITY CONTROL DATA

Workorder: 22974 TFS ROCHESTER / 3359151040

QC Batch: EDON/3411 Analysis Method: AM23G
 QC Batch Method: AM23G
 Associated Lab Samples: 229740041, 229740042, 229740043, 229740047

METHOD BLANK: 49536

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.20 U	0.20	
Acetic Acid	mg/l	0.023J	0.10	B
Propionic Acid	mg/l	0.10 U	0.10	
Formic Acid	mg/l	0.20 U	0.20	
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	
Hexanoic Acid	mg/l	0.20 U	0.20	

LABORATORY CONTROL SAMPLE: 49537

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	1.9	93	70-130	
Acetic Acid	mg/l	2	2.1	106	70-130	B
Propionic Acid	mg/l	2	2.0	98	70-130	
Formic Acid	mg/l	2	1.8	89	70-130	
Butyric Acid	mg/l	2	2.0	101	70-130	
Pyruvic Acid	mg/l	2	2.1	104	70-130	
i-Pentanoic Acid	mg/l	2	2.0	99	70-130	
Pentanoic Acid	mg/l	2	1.9	96	70-130	
Hexanoic Acid	mg/l	2	1.8	91	70-130	



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QUALITY CONTROL DATA QUALIFIERS

Workorder: 22974 TFS ROCHESTER / 3359151040

QUALITY CONTROL PARAMETER QUALIFIERS

- B The analyte was detected in the associated blank.
- D3 The matrix spike duplicate relative percent difference (RPD) exceeded laboratory control limits.
- M1 The continuing calibration verification recovery was outside laboratory control limits.
- M3 The matrix spike sample recovery was outside laboratory control limits.
- M5 The matrix spike duplicate sample recovery was outside laboratory control limits.
- n The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
229740001	ATR-ZVI2(32.5)-G060617			AM20GAX	DISG/6175
229740002	ATR-ZVI2(17.5)-G060617			AM20GAX	DISG/6175
229740003	ATR-OW5(44)-G060617			AM20GAX	DISG/6175
229740004	ATR-OW5(35)-G060617			AM20GAX	DISG/6175
229740005	ATR-OW5(16)-G060617			AM20GAX	DISG/6175
229740006	ATR-OW2(53)-G060617			AM20GAX	DISG/6175
229740007	ATR-OW2(33)-G060617			AM20GAX	DISG/6175
229740008	ATR-OW4(54)-G060617			AM20GAX	DISG/6175
229740009	ATR-MW25(16.4)-G060617			AM20GAX	DISG/6175
229740010	ATR-MW25(16.4)-G060617R			AM20GAX	DISG/6175
229740011	ATR-MW25(32.6)-G060617			AM20GAX	DISG/6175
229740012	ATR-MW25(45.2)-G060617			AM20GAX	DISG/6175
229740013	ATR-MW24(24.9)-G060617			AM20GAX	DISG/6175
229740014	ATR-MW26(17.5)-G060617			AM20GAX	DISG/6175
229740001	ATR-ZVI2(32.5)-G060617			AM23G	EDON/3401
229740002	ATR-ZVI2(17.5)-G060617			AM23G	EDON/3401
229740003	ATR-OW5(44)-G060617			AM23G	EDON/3401
229740004	ATR-OW5(35)-G060617			AM23G	EDON/3401
229740005	ATR-OW5(16)-G060617			AM23G	EDON/3401
229740006	ATR-OW2(53)-G060617			AM23G	EDON/3401
229740007	ATR-OW2(33)-G060617			AM23G	EDON/3401
229740008	ATR-OW4(54)-G060617			AM23G	EDON/3401
229740009	ATR-MW25(16.4)-G060617			AM23G	EDON/3401
229740010	ATR-MW25(16.4)-G060617R			AM23G	EDON/3401
229740011	ATR-MW25(32.6)-G060617			AM23G	EDON/3401
229740012	ATR-MW25(45.2)-G060617			AM23G	EDON/3401
229740013	ATR-MW24(24.9)-G060617			AM23G	EDON/3401
229740014	ATR-MW26(17.5)-G060617			AM23G	EDON/3401
229740015	ATR-MW26(28.8)-G060617			AM23G	EDON/3401
229740016	ATR-MW26(58.2)-G060617			AM23G	EDON/3401
229740017	ATR-MW16-G060617			AM23G	EDON/3401
229740018	ATR-MW17-G060617			AM23G	EDON/3401
229740019	ATR-OW3(55)-G060717			AM23G	EDON/3401



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
229740020	ATR-OW3(35)-G060717			AM23G	EDON/3401
229740021	ATR-OW1(39)-G060717			AM23G	EDON/3402
229740022	ATR-OW1(28)-G060717			AM23G	EDON/3402
229740023	ATR-MW82-G060717			AM23G	EDON/3402
229740024	ATR-MW13-G060717			AM23G	EDON/3402
229740025	ATR-MW6C-G060717			AM23G	EDON/3402
229740026	ATR-MW62(36)-G060717			AM23G	EDON/3402
229740027	ATR-MW67-G060817			AM23G	EDON/3402
229740028	ATR-MW71-G060817			AM23G	EDON/3402
229740029	ATR-MW68-G060817			AM23G	EDON/3402
229740030	ATR-MW72-G060817			AM23G	EDON/3402
229740031	ATR-MW77-G060817			AM23G	EDON/3402
229740032	ATR-MW78-G060817			AM23G	EDON/3402
229740033	ATR-MW76-G060817			AM23G	EDON/3402
229740034	ATR-EB002-G060817			AM23G	EDON/3402
229740035	ATR-MW12-G060717			AM23G	EDON/3402
229740036	ATR-MW59(29)-G060717			AM23G	EDON/3402
229740037	ATR-MW59(29)-G060717R			AM23G	EDON/3402
229740038	ATR-OW4(35)-G060717			AM23G	EDON/3402
229740039	ATR-MW81(27)-G060717			AM23G	EDON/3402
229740040	ATR-PM2-G060717			AM23G	EDON/3402
229740041	ATR-PM3-G060717			AM23G	EDON/3403
229740042	ATR-MW24(55.4)-G060717			AM23G	EDON/3403
229740043	ATR-MW14-G060717			AM23G	EDON/3403
229740044	ATR-MW20(51)-G060717			AM23G	EDON/3403
229740045	ATR-MW20(35)-G060717			AM23G	EDON/3403
229740046	ATR-MW20(35)-G060717R			AM23G	EDON/3403
229740047	ATR-MW15-G060617			AM23G	EDON/3403
229740015	ATR-MW26(28.8)-G060617			AM20GAX	DISG/6176
229740016	ATR-MW26(58.2)-G060617			AM20GAX	DISG/6176
229740017	ATR-MW16-G060617			AM20GAX	DISG/6176



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
229740018	ATR-MW17-G060617			AM20GAX	DISG/6176
229740019	ATR-OW3(55)-G060717			AM20GAX	DISG/6176
229740020	ATR-OW3(35)-G060717			AM20GAX	DISG/6176
229740021	ATR-OW1(39)-G060717			AM20GAX	DISG/6176
229740022	ATR-OW1(28)-G060717			AM20GAX	DISG/6176
229740023	ATR-MW82-G060717			AM20GAX	DISG/6176
229740024	ATR-MW13-G060717			AM20GAX	DISG/6176
229740025	ATR-MW6C-G060717			AM20GAX	DISG/6176
229740026	ATR-MW62(36)-G060717			AM20GAX	DISG/6176
229740027	ATR-MW67-G060817			AM20GAX	DISG/6176
229740028	ATR-MW71-G060817			AM20GAX	DISG/6176
229740029	ATR-MW68-G060817			AM20GAX	DISG/6176
229740030	ATR-MW72-G060817			AM20GAX	DISG/6176
229740031	ATR-MW77-G060817			AM20GAX	DISG/6177
229740032	ATR-MW78-G060817			AM20GAX	DISG/6177
229740033	ATR-MW76-G060817			AM20GAX	DISG/6177
229740034	ATR-EB002-G060817			AM20GAX	DISG/6178
229740035	ATR-MW12-G060717			AM20GAX	DISG/6178
229740036	ATR-MW59(29)-G060717			AM20GAX	DISG/6178
229740037	ATR-MW59(29)-G060717R			AM20GAX	DISG/6178
229740038	ATR-OW4(35)-G060717			AM20GAX	DISG/6178
229740039	ATR-MW81(27)-G060717			AM20GAX	DISG/6178
229740040	ATR-PM2-G060717			AM20GAX	DISG/6178
229740041	ATR-PM3-G060717			AM20GAX	DISG/6178
229740042	ATR-MW24(55.4)-G060717			AM20GAX	DISG/6178
229740043	ATR-MW14-G060717			AM20GAX	DISG/6178
229740044	ATR-MW20(51)-G060717			AM20GAX	DISG/6178
229740045	ATR-MW20(35)-G060717			AM20GAX	DISG/6178
229740046	ATR-MW20(35)-G060717R			AM20GAX	DISG/6178
229740047	ATR-MW15-G060617			AM20GAX	DISG/6178
229740001	ATR-ZVI2(32.5)-G060617			AM23G	EDON/3407



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
229740003	ATR-OW5(44)-G060617			AM23G	EDON/3407
229740004	ATR-OW5(35)-G060617			AM23G	EDON/3407
229740007	ATR-OW2(33)-G060617			AM23G	EDON/3407
229740008	ATR-OW4(54)-G060617			AM23G	EDON/3407
229740011	ATR-MW25(32.6)-G060617			AM23G	EDON/3407
229740012	ATR-MW25(45.2)-G060617			AM23G	EDON/3407
229740015	ATR-MW26(28.8)-G060617			AM23G	EDON/3407
229740016	ATR-MW26(58.2)-G060617			AM23G	EDON/3407
229740036	ATR-MW59(29)-G060717			AM20GAX	DISG/6184
229740037	ATR-MW59(29)-G060717R			AM20GAX	DISG/6184
229740039	ATR-MW81(27)-G060717			AM20GAX	DISG/6184
229740040	ATR-PM2-G060717			AM20GAX	DISG/6184
229740041	ATR-PM3-G060717			AM20GAX	DISG/6184
229740047	ATR-MW15-G060617			AM20GAX	DISG/6184
229740017	ATR-MW16-G060617			AM23G	EDON/3409
229740019	ATR-OW3(55)-G060717			AM23G	EDON/3409
229740022	ATR-OW1(28)-G060717			AM23G	EDON/3409
229740026	ATR-MW62(36)-G060717			AM23G	EDON/3409
229740027	ATR-MW67-G060817			AM23G	EDON/3409
229740028	ATR-MW71-G060817			AM23G	EDON/3409
229740029	ATR-MW68-G060817			AM23G	EDON/3409
229740030	ATR-MW72-G060817			AM23G	EDON/3409
229740031	ATR-MW77-G060817			AM23G	EDON/3410
229740032	ATR-MW78-G060817			AM23G	EDON/3410
229740033	ATR-MW76-G060817			AM23G	EDON/3410
229740035	ATR-MW12-G060717			AM23G	EDON/3410
229740036	ATR-MW59(29)-G060717			AM23G	EDON/3410
229740037	ATR-MW59(29)-G060717R			AM23G	EDON/3410
229740038	ATR-OW4(35)-G060717			AM23G	EDON/3410
229740039	ATR-MW81(27)-G060717			AM23G	EDON/3410
229740040	ATR-PM2-G060717			AM23G	EDON/3410



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 22974 TFS ROCHESTER / 3359151040

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
229740041	ATR-PM3-G060717			AM23G	EDON/3411
229740042	ATR-MW24(55.4)-G060717			AM23G	EDON/3411
229740043	ATR-MW14-G060717			AM23G	EDON/3411
229740047	ATR-MW15-G060617			AM23G	EDON/3411



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Section A
Required Client Information:
Company: Avec Foster Wheeler
Address: 321 Byers Rd
Millsboro OH, 45342
Email To: Paul.Stork@avec.com
Phone: 431-851-3000
Requested Due Date/TAT: _____

Section B
Required Project Information:
Report To: Paul Stork
Copy To: _____
Purchase Order No.: CO12605143
Project Name: TFS Rochester
Project Number: 33591510240

Section C
Invoice Information:
Attention: _____
Company Name: _____
Address: _____
Pace Quote Reference: _____
Pace Project Manager: _____
Pace Profile #: _____

REGULATORY AGENCY
NPDES: _____ GROUND WATER: _____ DRINKING WATER: _____
UST: _____ RCRA: _____ OTHER: _____

Site Location STATE: IN

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE ID (A-Z, 0-9 / - / -)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Y/N	Requested Analysis Filtered (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE START	COMPOSITE END/GRAB				
1	Drinking Water	DW	ATR-2V2a(32.5)-6060617	WT G	6-6-17	0930	5			
2	Water	WT	ATR-2V2a(17.5)-6060617	WT G	6-6-17	1035	5			
3	Waste Water	WW	ATR-0W5(44)-6060617	WT G	6-6-17	1155	5			
4	Product	P	ATR-0W5(35)-6060617	WT G	6-6-17	1245	5			
5	Soil/Solid	SL	ATR-0W5(16)-6060617	WT G	6-6-17	1355	5			
6	Oil	OL	ATR-0W2(53)-6060617	WT G	6-6-17	1515	5			
7	Wipe	WP	ATR-0W2(33)-6060617	WT G	6-6-17	1630	5			
8	Air	AR	ATR-0W4(54)-6060617	WT G	6-6-17	1615	5			
9	Tissue	TS	ATR-MW25(16.4)-6060617	WT G	6-6-17	1425	5			
10	Other	OT	ATR-MW25(16.4)-6060617	WT G	6-6-17	1425	5			
11			ATR-MW25(32.0)-6060617	WT G	6-6-17	1330	5			
12			ATR-MW25(45.2)-6060617	WT G	6-6-17	1205	5			

ADDITIONAL COMMENTS
* AM2061X Methane
ethane, ethene

RELINQUISHED BY / AFFILIATION
[Signature]

DATE
6-9-17

TIME
1000

ACCEPTED BY / AFFILIATION
[Signature]

DATE
6-17-0730

TIME
2 y

SAMPLE CONDITIONS

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

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Sally Parryler
SIGNATURE of SAMPLER: [Signature]
DATE Signed (MM/DD/YYYY): 6-9-17

CHAIN-OF-CUSTODY / Analytical Request Document

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

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



22974

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Section C Invoice Information:

Attention: **Paul Stark**
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

Section B Required Project Information:

Report To: **Paul Stark**
Copy To:
Purchase Order No.: **CO12605143**
Project Name: **PFS Rochester**
Project Number: **3357151040**

Section A Required Client Information:

Company: **Anee Foster Wheeler**
Address: **521 Eyes Rd**
Miamisburg OH 45342
Email To: **Paul.Stark@amefw.com**
Phone: **937-859-3800**
Requested Due Date/TAT:
REGULATORY AGENCY: NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER
Site Location STATE: **IN**

ITEM #	Section D Required Client Information		Section B Required Project Information		Section A Required Client Information		Requested Analysis Filtered (Y/N)												SAMPLE CONDITIONS				
	MATRIX / CODE	Matrix Codes DW WT WW P SL OL WP AR TS OT	MATRIX TYPE (G=GRAB C=COMP)	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	Temp In °C	Received on Ice (Y/N)	Sealed Cooler (Y/N)	Samples Intact (Y/N)
1	ATL-MW24(24.9)-6060717		G	6-6-17	1635																		
2	ATL-MW26(17.5)-6060717		G	6-6-17	1515																		
3	ATL-MW26(28.5)-6060717		G	6-6-17	1400																		
4	ATL-MW26(58.2)-6060717		G	6-6-17	1245																		
5	ATL-MW16-6060717		G	6-6-17	1120																		
6	ATL-MW17-6060717		G	6-6-17	1005																		
7	ATL-OW3(55)-6060717		G	6-7-17	0905																		
8	ATL-OW3(35)-6060717		G	6-7-17	1610																		
9	ATL-OW1(39)-6060717		G	6-7-17	1125																		
10	ATL-OW1(39)-6060717		G	6-7-17	1235																		
11	ATL-MW27-6060717		G	6-7-17	1355																		
12	ATL-MW13-6060717		G	6-7-17	1500																		
	* AMMOGAX Methane																						
	Ethane, ethene																						

SAMPLER NAME AND SIGNATURE: **Sgt. Parry**
PRINT Name of SAMPLER: **Sgt. Parry**
SIGNATURE of SAMPLER: *[Signature]*
DATE Signed (MM/DD/YYYY): **6-9-17**
ACCEPTED BY / AFFILIATION: **AFW**
TIME: **1000**
DATE: **6-9-17**
TIME: **1600**
DATE: **6-12-17**
TIME: **0730**

ORIGINAL

*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.

CHAIN-OF-CUSTODY / Analytical Request Document

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

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: <u>Anne Foster Wheeler</u>		Report To: <u>Paul Stark</u>		Attention:	
Address: <u>501 Rivers Rd</u>		Copy To:		Company Name:	
Miamisburg, OH 45342		Purchase Order No.: <u>0012605143</u>		Address:	
Email To: <u>Paul.stark@afw.com</u>		Project Name: <u>TFS Rochester</u>		NPDES	
Phone: <u>513-859-3880</u>		Project Number: <u>3359151040</u>		UST	
Requested Due Date/TAT:				RCRA	
				REGULATORY AGENCY	
				GROUND WATER	
				DRINKING WATER	
				OTHER	
				Site Location STATE: <u>IN</u>	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	Pace Project No./ Lab I.D.							
				COMPOSITE START	COMPOSITE END/GRAB													
	Sample ID (A-Z, 0-9 / . -) Sample IDs MUST BE UNIQUE	DW Drinking Water WT Water WW Waste Water P Product SL Soil/Solid OL Oil WP Wipe AR Air TSS Tissue OT Other	MATRIX CODE (see valid codes to left)	DATE	TIME	DATE	TIME	H ₂ SO ₄	HNO ₃	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test	Y/N	Residual Chlorine (Y/N)	
1	ATR-MW6C-6060717		WT	6-7-17	1445		5											
2	ATR-MW62(36)-6060717		WT	6-7-17	1600		5											
3	ATR-MW67-6060817		WT	6-8-17	1430		5											
4	ATR-MW71-6060817		WT	6-8-17	1315		5											
5	ATR-MW68-6060817		WT	6-8-17	1205		5											
6	ATR-MW72-6060817		WT	6-8-17	105		5											
7	ATR-MW77-6060817		WT	6-8-17	1000		5											
8	ATR-MW78-6060817		WT	6-8-17	1135		5											
9	ATR-MW76-6060817		WT	6-8-17	1340		5											
10	ATR-E002-6060817		WT	6-8-17	1505		5											
11	ATR-MW(6.4)-6060217		WT	6-7-17	1425		5											
12																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
*AM206AX Methane, Ethane, Ethane	<i>[Signature]</i>	6-9-17	1000	<i>[Signature]</i>	6-12-17	1000	Sealed Custody (Y/N) Received on Ice (Y/N) Temp in °C Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Sam Parkyn

SIGNATURE of SAMPLER: *[Signature]*

DATE Signed (MM/DD/YY): 6-9-17

*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.

CHAIN-OF-CUSTODY / Analytical Request Document

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

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22974

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: <u>Amel Foster Umeler</u>		Report To: <u>Bob Stecker</u>		Attention:	
Address: <u>501 Byers Rd</u>		Copy To:		Company Name:	
City/State: <u>Miamisburg OH, 45342</u>		Purchase Order No.: <u>CO12605143</u>		Address:	
Phone: <u>937-953-3000</u>		Project Name: <u>TFS Rochester</u>		Face Quote Reference:	
Requested Due Date/TAT:		Project Number: <u>3357151040</u>		Face Project Manager:	
				Site Location STATE: <u>IN</u>	
				REGULATORY AGENCY	
				NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/>	
				UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <input type="checkbox"/>	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
				COMPOSITE START	COMPOSITE END/GRAB						
1	ATR-MW12-6060717	DW	G	6-7-17	1620		5				
2	ATR-MW59(29)-6060717	WT	G	6-7-17	1345		5				
3	ATR-MW57(29)-6060717	WT	G	6-7-17	1345		5				
4	ATR-OW4(35)-6060717	WT	G	6-7-17	0935		5				
5	ATR-MW81(27)-6060717	WT	G	6-7-17	0335		5				
6	ATR-PM2-6060717	WT	G	6-7-17	1515		5				
7	ATR-PM3-6060717	WT	G	6-7-17	1640		5				
8	ATR-MW24(55-4)-6060717	WT	G	6-7-17	0840		5				
9	ATR-MW14-6060717	WT	G	6-7-17	0955		5				
10	ATR-MW20(51)-6060717	WT	G	6-7-17	1135		5				
11	ATR-MW20(35)-6060717	WT	G	6-7-17	1308		5				
12	ATR-MW20(35)-6060717	WT	G	6-7-17	1300		5				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		SAMPLE CONDITIONS	
	DATE	SIGNATURE	DATE	SIGNATURE	Temp in °C	Received on Ice (Y/N)
* AM20GAX Methane ethane, ethene	6-9-17	AFW	6-9-17	1000	6.12.17.07302	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Sam Byrnes

SIGNATURE of SAMPLER: [Signature]

DATE Signed (MM/DD/YY): 6-9-17

Temp in °C: _____

Received on Ice (Y/N): _____

Custody Sealed Cooler (Y/N): _____

Samples Intact (Y/N): _____

ORIGINAL

*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. F-ALL-Q-020rev.07, 15-May-2007

Cooler Receipt Form

Client Name: Amec Project: TFS Rochester Lab Work Order: 22974

A. Shipping/Container Information (circle appropriate response)

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

Tracking Number: _____

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: 20C Radiation Screened: Yes No Chain of Custody Present: Yes No

Comments: _____

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

	YES	NO	N/A	Comment
Chain of Custody properly filled out	✓			Reference non-Conformance
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: VDA'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: LG Date: 6/12/17

Project Manager Review: Jom Date: 6/13/17

NON-CONFORMANCE FORM

PAES Work Order #: 22974

Date: 6-12-17 Time of Receipt: 0730 Receiver: cy

Client: Amec

REASON FOR NON-CONFORMANCE

1. ATR-OW5(44)-G060617 & ATR-MW68-G060817:
one BAK vial broke.
2. ATR-MW25(16.4)-G060617 was listed twice on COC
Received one correct set, one with R at the end.
3. Didn't receive ATR-MW25(16.4)-G060717
Received ATR-MW15-G060617 6/6/17 @ 10:35
Not on COC.
4. Received MS/MSD vials for ATR-MW78-G060817
No request on COC.
5. Some TSP vials broke. 2 vials left for analysis

ACTION TAKEN:

Client name: Amec

Date: 6/13/17

Time: 12:30

Approved to continue with Analyses.

Client instructed on how to proceed
via email (attached).

Customer Service Initials: Jem

Date: 6/13/17

Lauren McGrath - RE: TFS Rochester Sample Discrepancies

22974

From: "Stork, Paul J." <Paul.Stork@amecfw.com>
To: Lauren McGrath <Lauren.McGrath@pacelabs.com>
Date: 6/13/2017 10:49 AM
Subject: RE: TFS Rochester Sample Discrepancies
Cc: "Partyka, Samuel" <Samuel.Partyka@amecfw.com>

Lauren,

Answers/directions for the discrepancies:

- 1) Can you run the analyses with the remaining containers?
- 2) The second set for MW25(16.4) should have had an "R" on the COC for replicate. Please analyze.
- 3) Confused about the statement of not receiving ATR-MW25(16.4)-G060717, see above, looks like you did receive it. However, add sample ATR-MW15-G060617 to the COC and analyze. Please note discrepancy in case narrative section in Lab report.
- 4) We are not going to run a site specific MS/MSD for these analyses. Please disregard the MS/MSD samples.
- 5) Do you have enough sample to perform the analyses for the broken containers?

Thanks, Paul

Paul Stork

Principal Project Manager, Environment & Infrastructure, Amec Foster Wheeler
521 Byers Rd, Ste 204, Miamisburg, OH 45342, USA
T +1 937 859 3600 D +1 937353 7210 M +1 937 671 7573
paul.stork@amecfw.com amecfw.com



From: Lauren McGrath [Lauren.McGrath@pacelabs.com]
Sent: Monday, June 12, 2017 1:44 PM
To: Stork, Paul J. <Paul.Stork@amecfw.com>
Subject: TFS Rochester Sample Discrepancies

22974

Dear Paul,

We received your samples for the TFS Rochester site but noticed some discrepancies. I have attached the NCM sheet as well as the COCs below for your convenience. Please let me know how you would like to proceed. Thank you.

Lauren McGrath

Project Coordinator

Pace Analytical Energy Services, LLC

220 William Pitt Way

Pittsburgh, PA 15238

412-826-5245

Lauren.McGrath@pacelabs.com

www.pacelabs.com

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22974



10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

Client: Paul Stork
AMEC Foster Wheeler
521 Byers Rd
Suite 204
Miamisburg, OH 45342

Phone: 937-859-3900

Fax:

Identifier: 0260F

Date Rec: 06/07/2017

Report Date: 06/13/2017

Client Project #: 3359151040

Client Project Name: TFS Rochester

Purchase Order #: C012605141

Analysis Requested: CENSUS

Reviewed By:

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-ZVI2(32.5)	ATR-ZVI2(17.5)	ATR-OW5(44)	ATR-OW5(35)	ATR-OW5(16)
	-G060617	-G060617	-G060617	-G060617	-G060617
Sample Date:	06/06/2017	06/06/2017	06/06/2017	06/06/2017	06/06/2017
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	CB	CB	CB	CB	CB

Dechlorinating Bacteria

<i>Dehalococcoides</i>	<i>DHC</i>	5.64E+03	2.22E+03	3.94E+03	7.94E+03	4.37E+04
tceA Reductase	TCE	2.81E+02	2.29E+02	7.75E+01	1.61E+02	6.54E+03
BAV1 Vinyl Chloride Reductase	BVC	3.48E+01	9.89E+01	1.24E+01	2.13E+01	7.71E+02
Vinyl Chloride Reductase	VCR	2.47E+03	7.32E+02	1.53E+03	3.83E+03	1.31E+04

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-OW2(53) -G060617	ATR-OW2(33) -G060617	ATR-MW15-G0 60617	ATR-MW25(45. 2)-G060617	ATR-MW25(32. 6)-G060617
Sample Date:	06/06/2017	06/06/2017	06/06/2017	06/06/2017	06/06/2017
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	CB	CB	CB	CB	CB

Dechlorinating Bacteria

<i>Dehalococcoides</i>	DHC	7.44E+02	8.34E+03	6.13E+04	1.00E+04	5.24E+02
tceA Reductase	TCE	4.00E+00	<5.00E-01	7.52E+02	1.60E+00	8.50E+00
BAV1 Vinyl Chloride Reductase	BVC	7.00E+00	4.50E+02	6.05E+02	2.17E+01	1.14E+02
Vinyl Chloride Reductase	VCR	7.08E+02	7.84E+03	2.01E+04	4.73E+03	1.80E+02

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-MW25(16.4)-G060617	ATR-MW25(16.4)-G060617R	ATR-OW4(54)-G060617	ATR-MW17-G060617	ATR-MW16-G060617
Sample Date:	06/06/2017	06/06/2017	06/06/2017	06/06/2017	06/06/2017
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	CB	CB	CB	CB	CB

Dechlorinating Bacteria

<i>Dehalococcoides</i>	DHC	4.92E+03	4.58E+03	4.77E+01	2.46E+01	2.14E+04
tceA Reductase	TCE	5.68E+02	5.29E+02	<5.00E-01	<5.00E-01	1.88E+02
BAV1 Vinyl Chloride Reductase	BVC	9.34E+01	1.01E+02	<5.00E-01	<5.00E-01	5.73E+02
Vinyl Chloride Reductase	VCR	1.88E+03	2.11E+03	2.00E-01 (J)	6.00E-01	1.64E+04

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-MW26(58.2)-G060617	ATR-MW26(28. 8)-G060617	ATR-MW26(17. 5)-G060617	ATR-MW24(24. 9)-G060617	ATR-OW3(55) -G060717
Sample Date:	06/06/2017	06/06/2017	06/06/2017	06/06/2017	06/07/2017
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	CB	CB	CB	CB	CB

Dechlorinating Bacteria

<i>Dehalococcoides</i>	<i>DHC</i>	9.10E+03	5.93E+01	4.22E+02	9.90E+00	1.16E+04
tceA Reductase	TCE	4.73E+02	8.00E+00	4.28E+01	9.00E-01	9.00E-01
BAV1 Vinyl Chloride Reductase	BVC	4.40E+00	8.20E+00	4.62E+01	5.00E-01 (J)	1.40E+00
Vinyl Chloride Reductase	VCR	5.16E+03	7.89E+01	2.18E+02	1.80E+00	3.15E+03

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-OW3(35) -G060717	ATR-OW1(39) -G060717	ATR-OW1(28) -G060717	ATR-MW82-G06 0717	ATR-MW13-G06 0717
Sample Date:	06/07/2017	06/07/2017	06/07/2017	06/07/2017	06/07/2017
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	CB	CB	CB	CB	CB

Dechlorinating Bacteria

<i>Dehalococcoides</i>	DHC	2.38E+03	4.94E+02	4.04E+03	1.38E+02	2.12E+05
tceA Reductase	TCE	8.15E+01	<5.00E-01	1.00E-01 (J)	<5.00E-01	2.20E+00
BAV1 Vinyl Chloride Reductase	BVC	7.73E+01	8.23E+01	4.26E+01	4.00E-01 (J)	5.50E+03
Vinyl Chloride Reductase	VCR	1.42E+03	1.59E+02	3.93E+03	4.42E+01	1.91E+05

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-MW12-G06 0717	ATR-MW20(51) -G060717	ATR-MW14-G0 60717	ATR-MW24(55. 4)-G060717	ATR-MW62(36) -G060717
Sample Date:	06/07/2017	06/07/2017	06/07/2017	06/07/2017	06/07/2017
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	CB	CB	CB	CB	CB

Dechlorinating Bacteria

<i>Dehalococcoides</i>	DHC	1.34E+04	3.72E+02	1.28E+05	5.61E+05	4.90E+03
tceA Reductase	TCE	<1.30E+00	<5.00E-01	2.62E+02	8.65E+04	1.10E+02
BAV1 Vinyl Chloride Reductase	BVC	7.25E+03	4.90E+00	9.71E+01	1.73E+04	3.11E+01
Vinyl Chloride Reductase	VCR	7.05E+04	3.04E+02	4.06E+04	1.62E+05	3.06E+03

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-MW6C-G0 60717	ATR-MW20(35) -G060717	ATR-MW20(35) -G060717R	ATR-PM3-G060 717	ATR-PM2-G060 717
Sample Date:	06/07/2017	06/07/2017	06/07/2017	06/07/2017	06/07/2017
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	CB	CB	CB	CB	CB

Dechlorinating Bacteria

		8.33E+03	2.58E+03	2.18E+03	<3.20E+00	6.49E+04
<i>Dehalococcoides</i>	DHC					
tceA Reductase	TCE	2.21E+02	3.20E+02	1.48E+02	<3.20E+00	<5.00E-01
BAV1 Vinyl Chloride Reductase	BVC	6.29E+02	1.85E+02	1.08E+02	<3.20E+00	5.49E+02
Vinyl Chloride Reductase	VCR	6.37E+03	2.74E+03	1.52E+03	<3.20E+00	3.64E+04

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-81(27) -G060717	ATR-OW4(35) -G060717	ATR-MW59(29) -G060717	ATR-MW59(29) -G060717R	ATR-MW67-G06 0817
Sample Date:	06/07/2017	06/07/2017	06/07/2017	06/07/2017	06/08/2017
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	CB	CB	CB	CB	CB

Dechlorinating Bacteria

<i>Dehalococcoides</i>	<i>DHC</i>	1.82E+04	3.59E+03	3.47E+03	4.58E+03	9.56E+04
tceA Reductase	TCE	5.00E-01 (J)	2.60E+02	<5.00E-01	<5.00E-01	<1.60E+00
BAV1 Vinyl Chloride Reductase	BVC	2.91E+03	1.66E+02	3.09E+02	5.98E+02	2.07E+04
Vinyl Chloride Reductase	VCR	2.07E+03	9.16E+02	1.13E+03	2.05E+03	1.45E+05

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-MW71-G06	ATR-MW68-G0	ATR-MW72-G0	ATR-MW77-G06	ATR-MW78-G06
	0817	60817	60817	0817	0817
Sample Date:	06/08/2017	06/08/2017	06/08/2017	06/08/2017	06/08/2017
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	CB	CB	CB	CB	CB

Dechlorinating Bacteria

		1.20E+04	4.80E+04	8.66E+04	2.31E+03	7.77E+01
<i>Dehalococcoides</i>	DHC					
tceA Reductase	TCE	<1.70E+00	<1.80E+00	<1.90E+00	5.99E+01	<5.00E-01
BAV1 Vinyl Chloride Reductase	BVC	6.22E+03	1.19E+04	2.40E+04	4.67E+01	2.30E+00
Vinyl Chloride Reductase	VCR	3.81E+04	1.63E+05	1.53E+05	1.87E+03	9.08E+01

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Client: AMEC Foster Wheeler
Project: TFS Rochester

MI Project Number: 0260F
Date Received: 06/07/2017

Sample Information

Client Sample ID:	ATR-MW76-G06	ATR-EB002-G06
	0817	0817
Sample Date:	06/08/2017	06/08/2017
Units:	cells/mL	cells/mL
Analyst:	CB	CB

Dechlorinating Bacteria

<i>Dehalococcoides</i>	DHC	1.07E+03	<5.00E-01
tceA Reductase	TCE	<5.00E-01	<5.00E-01
BAV1 Vinyl Chloride Reductase	BVC	3.87E+02	<5.00E-01
Vinyl Chloride Reductase	VCR	1.19E+02	<5.00E-01

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
 < = Result not detected

Quality Assurance/Quality Control Data

Samples Received 6/7/2017

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	06/07/2017	06/13/2017	0 °C	102%	non-detect	non-detect
BVC	06/07/2017	06/13/2017	0 °C	102%	non-detect	non-detect
TCE	06/07/2017	06/13/2017	0 °C	102%	non-detect	non-detect
VCR	06/07/2017	06/13/2017	0 °C	107%	non-detect	non-detect

Samples Received 6/8/2017

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	06/08/2017	06/13/2017	0 °C	101%	non-detect	non-detect
BVC	06/08/2017	06/13/2017	0 °C	102%	non-detect	non-detect
TCE	06/08/2017	06/13/2017	0 °C	102%	non-detect	non-detect
VCR	06/08/2017	06/13/2017	0 °C	107%	non-detect	non-detect

Samples Received 6/9/2017

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	06/09/2017	06/13/2017	0 °C	96%	non-detect	non-detect
BVC	06/09/2017	06/13/2017	0 °C	102%	non-detect	non-detect
TCE	06/09/2017	06/13/2017	0 °C	102%	non-detect	non-detect
VCR	06/09/2017	06/13/2017	0 °C	107%	non-detect	non-detect



10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

Identifier: 026OF

Date Rec: 06/07/2017

Report Date: 06/13/2017

Client Project #: 3359151040

Client Project Name: TFS Rochester

Purchase Order #: C012605141

Comments: The depths of the well screens were inadvertently left off of the COC for samples 026OF-9 and 026OF-10. The sampling IDs were corrected to ATR-MW25(45.2)-G060617 and ATR-MW25(32.6)-G060617, respectively, at the direction of Paul Stork.

REPORT TO:

Name: Paul Stork
 Company: Amec Foster Wheeler
 Address: 571 Byers Rd
Miamisburg OH, 45342
 email: paul.stork@amec.fw.com
 Phone: 937-859-3600
 Fax: _____

Project Manager: P. Stork
 Project Name: TFS Rochester
 Project No.: 3359151040

INVOICE TO: (For Invoices paid by a third party it is imperative that all information be provided)

Name: _____
 Company: _____
 Address: _____
 email: _____
 Phone: _____
 Fax: _____

Purchase Order No. 002605141
 Subcontract No. _____
 MI Quote No. _____



10515 Research Dr
 Knoxville, TN 37932
 865-573-8188

www.microbe.com

Please Check One:

- More samples to follow
- No Additional Samples

Report Type: Standard (default) Microbial Insights Level III raw data (15% surcharge) Microbial Insights Level IV (25% surcharge) Comprehensive Interpretive (15%) Historical Interpretive (35%)
 EDD type: Microbial Insights Standard (default) All other available EDDs (5% surcharge) Specify EDD Type: _____

Please contact us with any questions about the analyses or filling out the COC at (865) 573-8188 (9:00 am to 5:00 pm EST, M-F). After hours email: customerservice@microbe.com

Sample Information						Analyses		CENSUS: Please select the target organism/gene																											
MI ID <small>(Laboratory Use Only)</small>	Sample Name	Date Sampled	Time Sampled	Matrix	Total Number of Containers	PLFA	NGS	QuantArray Chlor	QuantArray Petro	DHC (Dehalococcoides) <i>(PCR)</i>	DHC Functional genes <i>(bvc, tca, vcr)</i>	DHBt (Dehalobacter)	DHG (Dehalogenimonas)	DSM (Desulfuromonas)	DSB (Desulfobacterium)	EBAC (Total)	SRB <i>(Sulfate Reducing Bacteria-APS)</i>	MGN (Methanogens)	MOB (Methanotrophs)	SMMO	DNF (Denitrifiers-nitS and nitK)	AOB <i>(ammonia oxidizing bacteria)</i>	PM1 (MTBE aerobic)	RMO (Toluene Monooxygenase)	RDEG (Toluene Monooxygenase)	PHE (Phenol Hydroxylase)	NAH (Naphthalene-aerobic)	BSSA <i>(Toluene/Xylene-Anaerobic)</i>	add. qPCR:	RNA <i>(Expression Option)*</i>	Other:	Other:	Other:		
02 60F1	ATL-2V12(32.5)-G060617	6-6-17	0930	w	1					X	X																								
2	ATL-2V12(17.5)-G060617	6-6-17	1035	w	1					X	X																								
3	ATL-0W5(44)-G060617	6-6-17	1155	w	1					X	X																								
4	ATL-0W5(35)-G060617	6-6-17	1245	w	1					X	X																								
5	ATL-0W5(16)-G060617	6-6-17	1355	w	1					X	X																								
6	ATL-0W2(53)-G060617	6-6-17	1515	w	1					X	X																								
7	ATL-0W2(33)-G060617	6-6-17	1620	w	1					X	X																								
8	ATL-MW15-G060617	6-6-17	1035	w	1					X	X																								
9	ATL-MW25-G060617	6-6-17	1205	w	1					X	X																								
10	ATL-MW25-G060617	6-6-17	1320	w	1					X	X																								

Relinquished by: [Signature] Date: 6-6-17/1800 Received by: [Signature] Date: 6/7/17 9:36

It is vital that chain of custody is filled out correctly & that all relative information is provided.
 Failure to provide sufficient and/or correct information regarding reporting, invoicing & analyses requested information may result in delays for which MI will not be liable.

REPORT TO:

Name: Paul Stork
 Company: Ameec Foster Wheeler
 Address: 521 Byers Rd
Miammsburg OH, 45342
 email: paul.stork@amecaw.com
 Phone: 937-859-3600
 Fax: _____

Project Manager: P. Stork
 Project Name: TFS Rochester
 Project No.: 3359151040

INVOICE TO: (For Invoices paid by a third party it is imperative that all information be provided)

Name: _____
 Company: _____
 Address: _____
 email: _____
 Phone: _____
 Fax: _____

Purchase Order No. CB12605141
 Subcontract No. _____
 MI Quote No. _____



10515 Research Dr
 Knoxville, TN 37932
 865-573-8188

www.microbe.com

Please Check One:

- More samples to follow
 No Additional Samples

Report Type: Standard (default) Microbial Insights Level III raw data(15% surcharge) Microbial Insights Level IV (25% surcharge) Comprehensive Interpretive(15%) Historical Interpretive (35%)

EDD type: Microbial Insights Standard (default) All other available EDDs (5% surcharge) Specify EDD Type: _____

Please contact us with any questions about the analyses or filling out the COC at (865) 573-8188 (9:00 am to 5:00 pm EST, M-F). After hours email: customerservice@microbe.com

Sample Information						Analyses		CENSUS: Please select the target organism/gene																											
MI ID <small>(Laboratory Use Only)</small>	Sample Name	Date Sampled	Time Sampled	Matrix	Total Number of Containers	PLFA	NGS	QuantArray Chlor	QuantArray Petro	DHC (Dehalococoides)	DHC Functional genes <small>(bvc, tca, vcr)</small>	DHBt (Dehalobacter)	DHG (Dehalogenimonas)	DSM (Desulfotomonas)	DSB (Desulfobacterium)	EBAC (Total)	SRB <small>(Sulfate Reducing Bacteria-APS)</small>	MGN (Methanogens)	MOB (Methanotrophs)	SMMO	DNF (Denitrifiers-nrS and nrK)	AOB <small>(ammonia oxidizing bacteria)</small>	PM1 (MTBE aerobic)	RMO (Toluene Monooxygenase)	RDEG (Toluene Monooxygenase)	PHE (Phenol Hydroxylase)	NAH (Naphthalene-aerobic)	BSSA <small>(Toluene/Xylene-Anaerobic)</small>	add. qPCR:	RNA <small>(Expression Option)*</small>	Other:	Other:	Other:		
0360F11	ATR-MW25(16.4)-G060617	6-6-17	1425	w	1					X	X																								
12	ATR-MW25(16.4)-G060617	6-6-17	1425	w	1					X	X																								
13	ATR-044(54)-G060617	6-6-17	1615	w	1					X	X																								
14	ATR-MW17-G060617	6-6-17	1005	w	1					X	X																								
15	ATR-MW16-G060617	6-6-17	1120	w	1					X	X																								
16	ATR-MW26(58.2)-G060617	6-6-17	1245	w	1					X	X																								
17	ATR-MW26(28.3)-G060617	6-6-17	1400	w	1					X	X																								
18	ATR-MW26(17.5)-G060617	6-6-17	1515	w	1					X	X																								
19	ATR-MW24(24.9)-G060617	6-6-17	1635	w	1					X	X																								

Relinquished by: [Signature] Date: 6-6-17/1800

Received by: [Signature] Date: 6/7/17 9:38

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REPORT TO:

Name: Paul Stork
 Company: Amecc Foster Wheeler
 Address: 521 Byers Rd.
Miammsburg OH, 45342
 email: paul.stork@ameccfw.com
 Phone: 937-859-3600
 Fax: _____

Project Manager: Paul Stork
 Project Name: TFS Rochester
 Project No.: 3355 15 1040

INVOICE TO: (For Invoices paid by a third party it is imperative that all information be provided)

Name: _____
 Company: _____
 Address: _____
 email: _____
 Phone: _____
 Fax: _____

Purchase Order No. CO12605141
 Subcontract No. _____
 MI Quote No. _____



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 Knoxville, TN 37932
 865-573-8188

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Please Check One:

- More samples to follow
 No Additional Samples

Report Type: Standard (default) Microbial Insights Level III raw data(15% surcharge) Microbial Insights Level IV (25% surcharge) Comprehensive Interpretive(15%) Historical Interpretive (35%)
 EDD type: Microbial Insights Standard (default) All other available EDDs (5% surcharge) Specify EDD Type: _____

Please contact us with any questions about the analyses or filling out the COC at (865) 573-8188 (9:00 am to 5:00 pm EST, M-F). After hours email: customerservice@microbe.com

Sample Information							Analyses		CENSUS: Please select the target organism/gene																										
MI ID (Laboratory Use Only)	Sample Name	Date Sampled	Time Sampled	Matrix	Total Number of Containers	PLFA	NGS	QuantArray Chlor	QuantArray Petro	DHC (Dehalococcoides) ^{PCR}	DHC Functional genes (bvc, lca, vcr)	DHBt (Dehalobacter)	DHG (Dehalogenimonas)	DSM (Desulfuromonas)	DSB (Desulfobacterium)	EBAC (Total)	SRB (Sulfate Reducing Bacteria-APS)	MGN (Methanogens)	MOB (Methanotrophs)	SMMO	DNF (Denitrifiers-nitS and nitK)	AMO (ammonia oxidizing bacteria)	PM1 (MTBE aerobic)	RMO (Toluene Monooxygenase)	RDEG (Toluene Monooxygenase)	PHE (Phenol Hydroxylase)	NAH (Naphthalene-aerobic)	BSSA (Toluene/Xylene-Anaerobic)	add. qPCR:	RNA (Expression Option)*	Other:	Other:	Other:		
0260FZ	ATR-OW3(55)-6060717	6-7-17	0905	w	1					X	X																								
21	ATR-OW3(35)-6060717	6-7-17	1010	w	1					X	X																								
22	ATR-OW1(39)-6060717	6-7-17	1125	w	1					X	X																								
23	ATR-OW1(28)-6060717	6-7-17	1235	w	1					X	X																								
24	ATR-OW2(82)-6060717	6-7-17	1355	w	1					X	X																								
25	ATR-MW13-6060717	6-7-17	1500	w	1					X	X																								
26	ATR-MW12-6060717	6-7-17	1620	w	1					X	X																								
27	ATR-MW20(51)-6060717	6-7-17	1135	w	1					X	X																								
28	ATR-MW14-6060717	6-7-17	0955	w	1					X	X																								
29	ATR-MW24(55.4)-6060717	6-7-17	0840	w	1					X	X																								

Relinquished by: [Signature]

Date

Received by: [Signature] Date 6/8/17

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* additional cost and sample preservation are associated with RNA samples.

**Saturday delivery: See sampling protocol for alternate shipping address.

REPORT TO:

Name: Paul Stark
 Company: Amec Foster Wheeler
 Address: 521 Byers Rd
Miamisburg OH 45342

email: paul.stark@amec.fw.com
 Phone: 937-859-3600
 Fax: _____

Project Manager: Paul Stark
 Project Name: TFS Rochester
 Project No.: 3359151040

INVOICE TO: (For Invoices paid by a third party it is imperative that all information be provided)

Name: _____
 Company: _____
 Address: _____

email: _____
 Phone: _____
 Fax: _____

Purchase Order No. CO12605141
 Subcontract No. _____
 MI Quote No. _____



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 865-573-8188

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Please Check One:

- More samples to follow
 No Additional Samples

- Report Type: Standard (default) Microbial Insights Level III raw data(15% surcharge) Microbial Insights Level IV (25% surcharge) Comprehensive Interpretive(15%) Historical Interpretive (35%)
 EDD type: Microbial Insights Standard (default) All other available EDDs (5% surcharge) Specify EDD Type: _____

Please contact us with any questions about the analyses or filling out the COC at (865) 573-8188 (9:00 am to 5:00 pm EST, M-F). After hours email: customerservice@microbe.com

Sample Information					Analyses		CENSUS: Please select the target organism/gene																											
MI ID (Laboratory Use Only)	Sample Name	Date Sampled	Time Sampled	Matrix	PLFA	NGS	QuantArray Chlor	QuantArray Petro	DHC (Dehalococoides) YPR	DHC Functional genes (bvt, bvt2)	DHB (Dehalobacter)	DHG (Dehalogenimonas)	DSM (Desulfotomomas)	DSB (Desulfobacterium)	EBAC (Total)	SRB (Sulfate Reducing Bacteria-APS)	MGN (Methanogens)	MOB (Methanotrophs)	SMMO	DNF (Denitrifiers and nitr)	AOB (ammonia oxidizing bacteria)	PM1 (MTBE aerobic)	RMO (Toluene Monooxygenase)	RDEG (Toluene Monooxygenase)	PHE (Phenol Hydroxylase)	NAH (Naphthalene-aerobic)	BSSA (Toluene Xylene-Aerobic)	acq. cPDR	RNA (Expression Option)	Other	Other	Other		
0260F361TL	MW62(36)-G060717	6-7-17	1608						X	X																								
31	ATR-MW6L-G060717	6-7-17	1445						X	X																								
32	ATR-MW20(35)-G060717	6-7-17	1300						X	X																								
33	ATR-MW20(35)-G060717R	6-7-17	1300						X	X																								
34	ATR-PM3-G060717	6-7-17	1640						X	X																								
35	ATR-PM2-G060717	6-7-17	1515						X	X																								
36	ATR-81(27)-G060717	6-7-17	1035						X	X																								
37	ATR-CW4(35)-G060717	6-7-17	0835						X	X																								
38	ATR-MW57(29)-G060717	6-7-17	1345						X	X																								
39	ATR-MW59(29)-G060717R	6-7-17	1345						X	X																								

Relinquished by: [Signature] 6-7-17/1800

Received by: Kate Clark Date: 6/8/17

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 Failure to provide sufficient and/or correct information regarding reporting, invoicing & analyses requested information may result in delays for which MI will not be liable

REPORT TO:

Name: Paul Stork
 Company: Ameec Foster Wheeler
 Address: 521 Bypass Rd
Miamisburg OH 45342
 email: paul.stork@ameecfw.com
 Phone: 937-859-3600
 Fax: _____

Project Manager: Paul Stork
 Project Name: IFS Rochester
 Project No.: 3359151640

INVOICE TO: (For Invoices paid by a third party it is imperative that all information be provided)

Name: _____
 Company: _____
 Address: _____
 email: _____
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 Fax: _____

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Please Check One:

- More samples to follow
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Report Type: Standard (default) Microbial Insights Level III raw data(15% surcharge) Microbial Insights Level IV (25% surcharge) Comprehensive Interpretive(15%) Historical Interpretive (35%)

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Sample Information						Analyses		CENSUS: Please select the target organism/gene																											
MI ID <small>(Laboratory Use Only)</small>	Sample Name	Date Sampled	Time Sampled	Matrix	Total Number of Containers	PLFA	NGS	QuantArray Chlor	QuantArray Petro	DHC (Dehalococcoides)	DHC Functional genes <small>(bvc, lca, vcr)</small>	DHBt (Dehalobacter)	DHG (Dehalogenimonas)	DSM (Desulfuromonas)	DSB (Desulfobacterium)	EBAC (Total)	SRB <small>(Sulfate Reducing Bacteria-APS)</small>	MGN (Methanogens)	MOB (Methanotrophs)	SMMO	DNF (Denitrifiers-nirS and nirK)	AMO <small>(ammonia oxidizing bacteria)</small>	PM1 (MTBE aerobic)	RMO (Toluene Monooxygenase)	RDEG (Toluene Monooxygenase)	PHE (Phenol Hydroxylase)	NAH (Naphthalene-aerobic)	BSSA <small>(Toluene/Xylene-Anaerobic)</small>	add. qPCR:	RNA <small>(Expression Option)*</small>	Other:	Other:	Other:		
026 OF40	ATR-MW67-6060817	6-8-17	1430	w	1					X	X																								
41	ATR-MW71-6060817	6-8-17	1315	w	1					X	X																								
42	ATR-MW68-6060817	6-8-17	1205	w	1					X	X																								
43	ATR-MW72-6060817	6-8-17	1105	w	1					X	X																								
44	ATR-MW77-6060817	6-8-17	1000	w	1					X	X																								
45	ATR-MW78-6060817	6-8-17	1135	w	1					X	X																								
46	ATR-MW76-6060817	6-8-17	1340	w	1					X	X																								
47	ATR-EB002-6060817	6-8-17	1505	w	1					X	X																								
Relinquished by: <u>[Signature]</u> Date: <u>6-8-17</u>						Received by: <u>[Signature]</u> Date: <u>6/9/17 9:27</u>																													

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* additional cost and sample preservation are associated with RNA samples.

**Saturday delivery: See sampling protocol for alternate shipping address.

**DATA VALIDATION REPORT
JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA**

1.0 INTRODUCTION

Groundwater samples were collected during monitoring well sampling completed in June 2017 at the Former TORX Facility in Rochester, Indiana. Samples were analyzed by ALS Laboratory Group in Holland, Michigan. A summary of sample delivery groups (SDGs) and field samples included in this review is contained in Table 1. Samples reviewed in this report were analyzed for the following USEPA SW-846 (USEPA, 1996) method:

- Volatile Organic Compounds (VOCs) by USEPA Method 8260B

Samples were also analyzed for other water chemistry parameters as indicated in Table 1. Results for these methods were not validated. VOC sample results were validated using general procedures in the USEPA National Data Validation Guidelines (USEPA, 1999), Indiana Department of Environmental Management (IDEM) data validation guidelines (IDEM, 2012), and data validation goals identified in the Work Plan Appendix N Quality Assurance Project Plan (QAPP) [AMEC, 2014]. Project data quality criteria for the VOC analyses are identified based on IDEM quality control (QC) goals (IDEM, 1998) and the professional judgment of the project chemist. A summary of project QC limits used during data validation is provided in Table 2. Full validation was completed on ten percent of the samples analyzed. Full validation was completed on a subset of samples in SDG 1706567. Full validation includes review of raw instrument data, lab notebook records, and calculation checks in addition to the following parameters:

- laboratory report narrative
- sample chain of custody/sample receipt records
- sample preservation and holding times
- instrument tuning and calibration
- QC blanks
- laboratory control sample (LCS) results
- matrix spike and matrix spike duplicate (MS/MSD) sample results
- surrogate recovery
- internal standard recovery and retention times
- field duplicate sample results
- sample results summary
- verification of electronic database results

Level II validation was completed on the remaining ninety percent of the data in accordance with specifications in the Work Plan. During the Level II validation the major quality assurance (QA)/QC indicators of analytical data quality are reviewed, but review of calculations and raw laboratory data is not included. QC data checks are completed using QC summary forms provided in the laboratory packages. The following parameters are checked during the Level II review:

- laboratory report narrative
- sample chain of custody/sample receipt records
- sample preservation and holding times
- QC blanks

- laboratory control sample (LCS) results
- matrix spike and matrix spike duplicate (MS/MSD) sample results
- surrogate recovery
- internal standard recovery and retention times
- field duplicate sample results
- sample results summary
- verification of electronic database results

A summary of qualification actions is presented on Table 3. Table 3 includes listings of validation reason codes to document the reason for the validation qualification. Final sample results are presented on Table 4. Target analytes were reported as detections if concentrations were greater than the reporting limit (RL). If target compounds were not detected, or concentrations were less than RLs, the compounds are reported as non-detect (U) at the reporting limits. Data validation qualifiers were added to results if associated quality control data did not meet goals in the validation guidelines or project work plan. The following data quality flags shown below were used to qualify data that did not meet project specific QC goals.

UJ – undetected and reporting limit is estimated
U – undetected
J - estimated value

2.0 VALIDATION OBSERVATION AND ACTIONS

With the exception of the data qualification actions discussed in the sections below, results are interpreted to be usable as reported by the laboratory. A summary of qualification actions is presented on Table 3. Validation reason codes are applied to the results to document the reason for the validation qualification.

2.1 VOCs

During the Level II review the data quality indicators listed below were reviewed. Checks that included validation actions are marked with an asterisk (*) and discussed in the following sections.

- laboratory report narrative
- sample chain of custody/sample receipt records
- sample preservation and holding times
- QC blanks
- laboratory control sample (LCS) results*
- matrix spike and matrix spike duplicate (MS/MSD) sample results*
- surrogate recovery
- internal standard recovery and retention times
- field duplicate sample results*
- sample results summary
- verification of electronic database results

During the full validation the data quality indicators listed below were also reviewed.

- initial calibration*
- continuing calibration*
- calculation checks specified in USEPA guidelines
- analyte identification and quantitation

Initial Calibration

In the initial calibration, the RSD for acetone was outside of the control limit of 20; therefore, results for acetone in all samples associated with the calibration on June 5 at 21:35 were estimated (J/UJ). Qualified results are included in Table 3 with reason code ICVRSD.

Continuing Calibration

In the continuing calibration for batch R213832 (VCCV1-170614), the percent difference in RRFs for bromomethane was outside the control limit of 20 (25) indicating possible low bias. All associated samples were estimated (J/UJ) for the compound. The percent difference for acetone was also outside of the control limit (30). All associated samples were estimated (J/UJ) for the compound.

In the continuing calibration for batch R213911 (VCCV3-170614), both the percent differences in RRFs for acetone (39) and 2-butanone (21) were outside of the control limit. All associated samples were estimated (J/UJ) for these compounds.

In the continuing calibration for batch R213950 (VCCV2-170615), the percent differences in RRFs for both bromomethane (27) and acetone (31) were outside of the control limit. All associated samples were estimated (J/UJ) for these compounds.

In the continuing calibration for batch R213997 (VCCV3-170615), the percent differences in RRFs for both bromomethane (26) and acetone (26) were outside of the control limit. All associated samples were estimated (J/UJ) for these compounds.

In the continuing calibration for batch R214069a (VCCV4-170616), the percent differences for bromomethane (29) and acetone (21) were outside of the control limit thus all associated samples were estimated (J/UJ).

Qualified results are included in Table 3 with reason code CCV%D.

LCS Results

The LCS for batch R213832 had high recovery for 4-methyl-2-pentanone indicating possible high bias. Positive detect sample ATR-MW72-G060817 was estimated (J).

The LCS for batch R213997 had low recovery for bromomethane (56) and vinyl chloride (69). All samples were estimated (J/UJ) for bromomethane and vinyl chloride.

The LCS for batch 214069a had low recovery for bromomethane (52). All samples were estimated (J/UJ) for bromomethane.

Qualified results are included in Table 3 with reason code LCS-L.

MS/MSD Results

A subset of results for the following compounds was qualified as estimated values (J/UJ) due to MS/MSD percent recoveries outside the QAPP specified control limits. Qualified results are summarized in Table 3 and were assigned reason code MS-L or MS-H.

- bromomethane
- chloromethane

In the MS/MSD associated with sample ATR- OW1(39)-G060717 the percent recoveries for bromomethane (37, 45) were outside of the control limits. The sample was estimated (UJ) for bromomethane.

In the MS/MSD associated with sample ATR-MW78-G060717 the percent recoveries for bromomethane (51,54) and chloromethane (63, 60) were outside of the control limits. The sample was estimated (UJ) for these compounds.

In the MS/MSD associated with sample ATR-MW67-G060717 the percent recoveries for bromomethane (18, 26) and chloromethane (66, 67) were outside of the control limit. The sample was estimate (UJ) for these compounds.

In the MS/MSD associated with sample 1706644-09A, the percent recoveries for bromomethane (40, 50) were outside of the control limit and the sample was estimates (UJ).

Field Duplicates

The RPD between sample ATR-MW59(29)-G060717 (non-detect) and its field duplicate, ATR-MW59(29)-G060717R (5.4 ug/L), exceeded the control limit of 50 for chloroethane and the detection for the replicate exceeded the detection limit. Results for both samples are qualified estimated (J/UJ).

Data Validator: Haley Plante
Date: August 18, 2017

Report Reviewed by: Chris Ricardi, NRCC-EAC



Date: August 31, 2017

Reference:

IDEM, 1998. "Guidance to the Performance and Presentation of Analytical Chemistry Data"; Indiana Department of Environmental Monitoring; Technical Waste Assessment, Rev. 1: July 16, 1998.

IDEM, 2012. "Remediation Closure Guide"; Office of Land Quality; Indiana Department of Environmental Management; March 22, 2012, with corrections through July 9, 2012.

AMEC, 2014. "Investigation Work Plan Former TORX Facility 4366 North Old US Rt. 31 Rochester, Indiana"; Appendix N QAPP – Groundwater Data Collection, Sampling, and Analyses; June 2014.

U.S. Environmental Protection Agency (USEPA), 1996. "Test Methods for Evaluating Solid Waste"; Laboratory Manual Physical/Chemical Methods; Office of Solid Waste and Emergency Response; Washington, DC; SW-846; November 1986; Revision 4 -December 1996.

U.S. Environmental Protection Agency (USEPA), 1999. "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review"; Office of Emergency and Remedial Response; EPA-540/R-99/008; October 1999.

TABLE 1 - SAMPLE SUMMARY
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

Location	Field Sample ID	Date	Media	Lab Sample ID	SW8260B SW6020A A2320 B-97 E353.2 RSW9056A SW9060A						
					VOC Code Lab Id	Metals Lab Id	Alk Lab Id	Nitrate Lab Id	Anions Lab Id	TOC Lab Id	
MW-12	ATR-MW12-G060717	6/7/2017	GW	1706567-58A	FS	36		2	1	2	1
MW-13	ATR-MW13-G060717	6/7/2017	GW	1706567-27A	FS	36		2	1	2	1
MW-14	ATR-MW14-G060717	6/7/2017	GW	1706567-11A	FS	36		2	1	2	1
MW-15	ATR-MW15-G060617	6/6/2017	GW	1706567-49A	FS	36		2	1	2	1
MW-16	ATR-MW16-G060617	6/6/2017	GW	1706567-19A	FS	36		2	1	2	1
MW-17	ATR-MW17-G060617	6/6/2017	GW	1706567-20A	FS	36		2	1	2	1
MW-20(35)	ATR-MW20(35)-G060717	6/7/2017	GW	1706567-13A	FS	36		2	1	2	1
MW-20(35)	ATR-MW20(35)-G060717R	6/7/2017	GW	1706567-14A	FD	36		2	1	2	1
MW-20(51)	ATR-MW20(51)-G060717	6/7/2017	GW	1706567-12A	FS	36		2	1	2	1
MW-24(24.9)	ATR-MW24(24.9)-G060617	6/6/2017	GW	1706567-50A	FS	36		2	1	2	1
MW-24(55.9)	ATR-MW24(55.4)-G060717	6/7/2017	GW	1706567-09A	FS	36		2	1	2	1
MW-25(16.4)	ATR-MW25(16.4)-G060617	6/6/2017	GW	1706567-45A	FS	36		2	1	2	1
MW-25(16.4)	ATR-MW25(16.4)-G060617R	6/6/2017	GW	1706567-46A	FD	36		2	1	2	1
MW-25(32.6)	ATR-MW25(32.6)-G060617	6/6/2017	GW	1706567-47A	FS	36		2	1	2	1
MW-25(45.2)	ATR-MW25(45.2)-G060617	6/6/2017	GW	1706567-48A	FS	36		2	1	2	1
MW-26(17.5)	ATR-MW26(17.5)-G060617	6/6/2017	GW	1706567-51A	FS	36		2	1	2	1
MW-26(28.8)	ATR-MW26(28.8)-G060617	6/6/2017	GW	1706567-52A	FS	36		2	1	2	1
MW-26(58.8)	ATR-MW26(58.2)-G060617	6/6/2017	GW	1706567-53A	FS	36		2	1	2	1
MW-59(29)	ATR-MW59(29)-G060717	6/7/2017	GW	1706567-28A	FS	36		2	1	2	1
MW-59(29)	ATR-MW59(29)-G060717R	6/7/2017	GW	1706567-29A	FD	36		2	1	2	1
MW-6C(26)	ATR-MW6C-G060717	6/7/2017	GW	1706567-15A	FS	36		2	1	2	1
MW-62(36)	ATR-MW62(36)-G060717	6/7/2017	GW	1706567-16A	FS	36		2	1	2	1
MW-67(30)	ATR-MW67-G060817	6/8/2017	GW	1706567-17A	FS	36		2	1	2	1
MW-68(32)	ATR-MW68-G060817	6/8/2017	GW	1706567-01A	FS	36		2	1	2	1
MW-71(33)	ATR-MW71-G060817	6/8/2017	GW	1706567-18A	FS	36		2	1	2	1
MW-72(32)	ATR-MW72-G060817	6/8/2017	GW	1706567-02A	FS	36		2	1	2	1
MW-76	ATR-MW76-G060817	6/8/2017	GW	1706567-06A	FS	36		2	1	2	1
MW-77(41)	ATR-MW77-G060817	6/8/2017	GW	1706567-04A	FS	36		2	1	2	1
MW-78(35)	ATR-MW78-G060817	6/8/2017	GW	1706567-05A	FS	36		2	1	2	1
MW-81(27)	ATR-MW81(27)-G060717	6/7/2017	GW	1706567-31A	FS	36		2	1	2	1
MW-82(58)	ATR-MW82-G060717	6/7/2017	GW	1706567-25A	FS	36		2	1	2	1
OW-01(28)	ATR-OW1(28)-G060717	6/7/2017	GW	1706567-24A	FS	36		2	1	2	1
OW-01(39)	ATR-OW1(39)-G060717	6/7/2017	GW	1706567-23A	FS	36		2	1	2	1
OW-02(33)	ATR-OW2(33)-G060617	6/6/2017	GW	1706567-42A	FS	36		2	1	2	1
OW-02(53)	ATR-OW2(53)-G060617	6/6/2017	GW	1706567-41A	FS	36		2	1	2	1
OW-03(35)	ATR-OW3(35)-G060717	6/7/2017	GW	1706567-22A	FS	36		2	1	2	1
OW-03(55)	ATR-OW3(55)-G060717	6/7/2017	GW	1706567-21A	FS	36		2	1	2	1

TABLE 1 - SAMPLE SUMMARY
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

Location	Field Sample ID	Date	Media	Lab Sample ID	Code	SW8260B	SW6020A	A2320 B-97	E353.2	RSW9056A	SW9060A	
						VOC	Metals	Alk	Nitrate	Anions	TOC	
						Lab Id	Lab Id	Lab Id	Lab Id	Lab Id	Lab Id	
OW-04(35)	ATR-OW4(35)-G060717	6/7/2017	GW	1706567-30A	FS	36			2	1	2	1
OW-04(54)	ATR-OW4(54)-G060617	6/6/2017	GW	1706567-44A	FS	36			2	1	2	1
OW-05(16)	ATR-OW5(16)-G060617	6/6/2017	GW	1706567-40A	FS	36			2	1	2	1
OW-05(35)	ATR-OW5(35)-G060617	6/6/2017	GW	1706567-39A	FS	36			2	1	2	1
OW-05(54)	ATR-OW5(44)-G060617	6/6/2017	GW	1706567-38A	FS	36			2	1	2	1
PM-2	ATR-PM2-G060717	6/7/2017	GW	1706567-32A	FS	36			2	1	2	1
PM-3	ATR-PM3-G060717	6/7/2017	GW	1706567-33A	FS	36			2	1	2	1
QC	ATR-EB001-G060617	6/6/2017	BW	1706567-37A	EB	36			2	1	2	1
QC	ATR-EB001-G060717	6/7/2017	BW	1706567-26A	EB	36			2	1	2	1
QC	ATR-EB001-G060817	6/8/2017	BW	1706567-03A	EB	36			2	1	2	1
QC	ATR-EB002-G060617	6/6/2017	BW	1706567-54A	EB	36			2	1	2	1
QC	ATR-EB002-G060717	6/7/2017	BW	1706567-10A	EB	36			2	1	2	1
QC	ATR-EB002-G060817	6/8/2017	BW	1706567-07A	EB	36			2	1	2	1
QC	ATR-EB003-G060617	6/6/2017	BW	1706567-43A	EB	36						
QC	ATR-EB003-G060617	6/7/2017	BW	1706567-34A	EB	36						
QC	ATR-FB001-G060817	6/8/2017	BW	1706567-08A	FB	36						
QC	ATR-TB001-G060617	6/6/2017	BW	1706567-55A	TB	36						
QC	ATR-TB001-G060717	6/7/2017	BW	1706567-56A	TB	36						
QC	ATR-TB001-G060817	6/8/2017	BW	1706567-57A	TB	36						
ZVI-2(17.5)	ATR-ZVI2(17.5)-G060617	6/6/2017	GW	1706567-36A	FS	36			2	1	2	1
ZVI-2(32.5)	ATR-ZVI2(32.5)-G060617	6/6/2017	GW	1706567-35A	FS	36			2	1	2	1
MW-12	ATR-MW12-G060717	6/7/2017	GW	1706567-58D	FS							
MW-13	ATR-MW13-G060717	6/7/2017	GW	1706567-27D	FS							
MW-14	ATR-MW14-G060717	6/7/2017	GW	1706567-11D	FS							
MW-15	ATR-MW15-G060617	6/6/2017	GW	1706567-49D	FS							
MW-16	ATR-MW16-G060617	6/6/2017	GW	1706567-19D	FS							
MW-17	ATR-MW17-G060617	6/6/2017	GW	1706567-20D	FS							
MW-20(35)	ATR-MW20(35)-G060717	6/7/2017	GW	1706567-13D	FS							
MW-20(35)	ATR-MW20(35)-G060717R	6/7/2017	GW	1706567-14D	FD							
MW-20(51)	ATR-MW20(51)-G060717	6/7/2017	GW	1706567-12D	FS							
MW-24(24.9)	ATR-MW24(24.9)-G060617	6/6/2017	GW	1706567-50D	FS							
MW-24(55.9)	ATR-MW24(55.4)-G060717	6/7/2017	GW	1706567-09D	FS							
MW-25(16.4)	ATR-MW25(16.4)-G060617	6/6/2017	GW	1706567-45D	FS							
MW-25(16.4)	ATR-MW25(16.4)-G060617R	6/6/2017	GW	1706567-46D	FD							
MW-25(32.6)	ATR-MW25(32.6)-G060617	6/6/2017	GW	1706567-47D	FS							
MW-25(45.2)	ATR-MW25(45.2)-G060617	6/6/2017	GW	1706567-48D	FS							
MW-26(17.5)	ATR-MW26(17.5)-G060617	6/6/2017	GW	1706567-51D	FS							

TABLE 1 - SAMPLE SUMMARY
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

Location	Field Sample ID	Date	Media	Lab Sample ID	SW8260B SW6020A A2320 B-97 E353.2 RSW9056A SW9060A					
					VOC Code Lab Id	Metals Lab Id	Alk Lab Id	Nitrate Lab Id	Anions Lab Id	TOC Lab Id
MW-26(28.8)	ATR-MW26(28.8)-G060617	6/6/2017	GW	1706567-52D	FS		2			
MW-26(58.8)	ATR-MW26(58.2)-G060617	6/6/2017	GW	1706567-53D	FS		2			
MW-59(29)	ATR-MW59(29)-G060717	6/7/2017	GW	1706567-28D	FS		2			
MW-59(29)	ATR-MW59(29)-G060717R	6/7/2017	GW	1706567-29D	FD		2			
MW-61(26)	ATR-MW61-G060717	6/7/2017	GW	1706567-15D	FS		2			
MW-62(36)	ATR-MW62(36)-G060717	6/7/2017	GW	1706567-16D	FS		2			
MW-67(30)	ATR-MW67-G060817	6/8/2017	GW	1706567-17D	FS		2			
MW-68(32)	ATR-MW68-G060817	6/8/2017	GW	1706567-01D	FS		2			
MW-71(33)	ATR-MW71-G060817	6/8/2017	GW	1706567-18D	FS		2			
MW-72(32)	ATR-MW72-G060817	6/8/2017	GW	1706567-02D	FS		2			
MW-76	ATR-MW76-G060817	6/8/2017	GW	1706567-06D	FS		2			
MW-77(41)	ATR-MW77-G060817	6/8/2017	GW	1706567-04D	FS		2			
MW-78(35)	ATR-MW78-G060817	6/8/2017	GW	1706567-05D	FS		2			
MW-81(27)	ATR-MW81(27)-G060717	6/7/2017	GW	1706567-31D	FS		2			
MW-82(58)	ATR-MW82-G060717	6/7/2017	GW	1706567-25D	FS		2			
OW-01(28)	ATR-OW1(28)-G060717	6/7/2017	GW	1706567-24D	FS		2			
OW-01(39)	ATR-OW1(39)-G060717	6/7/2017	GW	1706567-23D	FS		2			
OW-02(33)	ATR-OW2(33)-G060617	6/6/2017	GW	1706567-42D	FS		2			
OW-02(53)	ATR-OW2(53)-G060617	6/6/2017	GW	1706567-41D	FS		2			
OW-03(35)	ATR-OW3(35)-G060717	6/7/2017	GW	1706567-22D	FS		2			
OW-03(55)	ATR-OW3(55)-G060717	6/7/2017	GW	1706567-21D	FS		2			
OW-04(35)	ATR-OW4(35)-G060717	6/7/2017	GW	1706567-30D	FS		2			
OW-04(54)	ATR-OW4(54)-G060617	6/6/2017	GW	1706567-44D	FS		2			
OW-05(16)	ATR-OW5(16)-G060617	6/6/2017	GW	1706567-40D	FS		2			
OW-05(35)	ATR-OW5(35)-G060617	6/6/2017	GW	1706567-39D	FS		2			
OW-05(54)	ATR-OW5(44)-G060617	6/6/2017	GW	1706567-38D	FS		2			
PM-2	ATR-PM2-G060717	6/7/2017	GW	1706567-32D	FS		2			
PM-3	ATR-PM3-G060717	6/7/2017	GW	1706567-33D	FS		2			
QC	ATR-EB002-G060817	6/8/2017	BW	1706567-07D	EB		2			
ZVI-2(17.5)	ATR-ZVI2(17.5)-G060617	6/6/2017	GW	1706567-36D	FS		2			
ZVI-2(32.5)	ATR-ZVI2(32.5)-G060617	6/6/2017	GW	1706567-35D	FS		2			

indwater, BW = blank water
 sample, FD = field duplicate, TB = trip blank

EB = equipment blank, FB = field blank
 Param_Count = number of analytes reported

**TABLE 2 - QC LIMITS
DATA VALIDATION REPORT
JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA**

PARAMETER	QC TEST	ANALYTE	WATER (%)	WATER RPD
Volatiles	Surrogate	All Surrogates(1) All Target	85 - 115	
	LCS	Compounds All Target	70 - 130	
	MS/MSD	Compounds All Target	70 - 130	20(2)
	Field Duplicates	Compounds		25(3)

Notes:

LCS - Laboratory Control Sample

MS/MSD - Matrix Spike/ Matrix Spike Duplicate

(1) Project-specific limits for surrogate recovery review/validation are established based on subcontract laboratory and Indiana Department of Environmental Management (IDEM) recommended control limits. The project limits are used for evaluation of recovery for all surrogates during data validation.

(2) Both results are > 5X the sample quantitation limit (SQL). For aqueous results < 5X the SQL use \pm SQL value. For solid media (soil and sediment) use \pm 2X SQL value.

(3) Both results are > 5X the SQL. For aqueous results < 5X the SQL use \pm 1.5X SQL value. For solid media (soil and sediment) use \pm 2.5X SQL value.

TABLE 3 - VALIDATION ACTION SUMMARY
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SGD	Method	Loc Name	Field Sample Id	Lab Sample Id	Sample Date	Param Name	Lab				Result		
							Result Text	Lab Qual	Final Result	Final Qual			
1706567	SW8260B	QC	ATR-EB001-G060617	1706567-37A	6/6/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	QC	ATR-EB001-G060617	1706567-37A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D		UG/L
1706567	SW8260B	QC	ATR-EB001-G060717	1706567-26A	6/7/2017	2-Butanone	5	U	5	UJ	CCV%D		UG/L
1706567	SW8260B	QC	ATR-EB001-G060717	1706567-26A	6/7/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	QC	ATR-EB001-G060817	1706567-03A	6/8/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	QC	ATR-EB001-G060817	1706567-03A	6/8/2017	Bromomethane	1	U	1	UJ	CCV%D		UG/L
1706567	SW8260B	QC	ATR-EB002-G060617	1706567-54A	6/6/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	QC	ATR-EB002-G060617	1706567-54A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D	LCS-L	UG/L
1706567	SW8260B	QC	ATR-EB002-G060617	1706567-54A	6/6/2017	Vinyl chloride	1	U	1	UJ	LCS-L		UG/L
1706567	SW8260B	QC	ATR-EB002-G060717	1706567-10A	6/7/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	QC	ATR-EB002-G060717	1706567-10A	6/7/2017	Bromomethane	1	U	1	UJ	CCV%D		UG/L
1706567	SW8260B	QC	ATR-EB002-G060817	1706567-07A	6/8/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	QC	ATR-EB002-G060817	1706567-07A	6/8/2017	Bromomethane	1	U	1	UJ	CCV%D		UG/L
1706567	SW8260B	QC	ATR-EB003-G060617	1706567-34A	6/7/2017	2-Butanone	5	U	5	UJ	CCV%D		UG/L
1706567	SW8260B	QC	ATR-EB003-G060617	1706567-34A	6/7/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	QC	ATR-EB003-G060617	1706567-43A	6/6/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	QC	ATR-EB003-G060617	1706567-43A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D		UG/L
1706567	SW8260B	QC	ATR-FB001-G060817	1706567-08A	6/8/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	QC	ATR-FB001-G060817	1706567-08A	6/8/2017	Bromomethane	1	U	1	UJ	CCV%D	LCS-L	UG/L
1706567	SW8260B	QC	ATR-FB001-G060817	1706567-08A	6/8/2017	Vinyl chloride	1	U	1	UJ	LCS-L		UG/L
1706567	SW8260B	MW-12	ATR-MW12-G060717	1706567-58A	6/7/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	MW-12	ATR-MW12-G060717	1706567-58A	6/7/2017	Bromomethane	1	U	1	UJ	CCV%D	LCS-L	UG/L
1706567	SW8260B	MW-12	ATR-MW12-G060717	1706567-58A	6/7/2017	Vinyl chloride	9.6	J	9.6	J	LCS-L		UG/L
1706567	SW8260B	MW-13	ATR-MW13-G060717	1706567-27A	6/7/2017	2-Butanone	5	U	5	UJ	CCV%D		UG/L
1706567	SW8260B	MW-13	ATR-MW13-G060717	1706567-27A	6/7/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	MW-13	ATR-MW13-G060717	1706567-27A	6/7/2017	Bromomethane	1	U	1	UJ	CCV%D		UG/L
1706567	SW8260B	MW-13	ATR-MW13-G060717	1706567-27A	6/7/2017	Vinyl chloride	150	J	150	J	LCS-L		UG/L
1706567	SW8260B	MW-14	ATR-MW14-G060717	1706567-11A	6/7/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	MW-14	ATR-MW14-G060717	1706567-11A	6/7/2017	Bromomethane	1	U	1	UJ	CCV%D		UG/L
1706567	SW8260B	MW-15	ATR-MW15-G060617	1706567-49A	6/6/2017	Acetone	13	J	13	J	ICVRS	CCV%D	UG/L
1706567	SW8260B	MW-15	ATR-MW15-G060617	1706567-49A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D	LCS-L	UG/L
1706567	SW8260B	MW-16	ATR-MW16-G060617	1706567-19A	6/6/2017	2-Butanone	110	J	110	J	CCV%D		UG/L
1706567	SW8260B	MW-16	ATR-MW16-G060617	1706567-19A	6/6/2017	Acetone	11	J	11	J	ICVRS	CCV%D	UG/L
1706567	SW8260B	MW-16	ATR-MW16-G060617	1706567-19A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D		UG/L
1706567	SW8260B	MW-16	ATR-MW16-G060617	1706567-19A	6/6/2017	Vinyl chloride	44	J	44	J	LCS-L		UG/L
1706567	SW8260B	MW-17	ATR-MW17-G060617	1706567-20A	6/6/2017	2-Butanone	5	U	5	UJ	CCV%D		UG/L
1706567	SW8260B	MW-17	ATR-MW17-G060617	1706567-20A	6/6/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	MW-20(35)	ATR-MW20(35)-G060717	1706567-13A	6/7/2017	Acetone	10	U	10	UJ	ICVRS	CCV%D	UG/L
1706567	SW8260B	MW-20(35)	ATR-MW20(35)-G060717	1706567-13A	6/7/2017	Bromomethane	1	U	1	UJ	CCV%D		UG/L

TABLE 3 - VALIDATION ACTION SUMMARY
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SGD	Method	Loc Name	Field Sample Id	Lab Sample Id	Sample Date	Param Name	Lab		Final Result	Final Qual	Val Reason Code	Uom
							Result Text	Lab Qual				
1706567	SW8260B	MW-20(35)	ATR-MW20(35)-G060717R	1706567-14A	6/7/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-20(51)	ATR-MW20(51)-G060717	1706567-12A	6/7/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-20(51)	ATR-MW20(51)-G060717	1706567-12A	6/7/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-24(24.9)	ATR-MW24(24.9)-G060617	1706567-50A	6/6/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-24(24.9)	ATR-MW24(24.9)-G060617	1706567-50A	6/6/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-24(55.9)	ATR-MW24(55.4)-G060717	1706567-09A	6/7/2017	Acetone	66	66 J	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-24(55.9)	ATR-MW24(55.4)-G060717	1706567-09A	6/7/2017	Bromomethane	1 U	1 UJ	CCV%D, LCS-L, MS	UG/L		
1706567	SW8260B	MW-25(16.4)	ATR-MW25(16.4)-G060617	1706567-45A	6/6/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-25(16.4)	ATR-MW25(16.4)-G060617	1706567-45A	6/6/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-25(16.4)	ATR-MW25(16.4)-G060617R	1706567-46A	6/6/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-25(16.4)	ATR-MW25(16.4)-G060617R	1706567-46A	6/6/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-25(32.6)	ATR-MW25(32.6)-G060617	1706567-47A	6/6/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-25(32.6)	ATR-MW25(32.6)-G060617	1706567-47A	6/6/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-25(45.2)	ATR-MW25(45.2)-G060617	1706567-48A	6/6/2017	Acetone	16	16 J	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-25(45.2)	ATR-MW25(45.2)-G060617	1706567-48A	6/6/2017	Bromomethane	1 U	1 UJ	CCV%D, LCS-L	UG/L		
1706567	SW8260B	MW-26(17.5)	ATR-MW26(17.5)-G060617	1706567-51A	6/6/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-26(17.5)	ATR-MW26(17.5)-G060617	1706567-51A	6/6/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-26(28.8)	ATR-MW26(28.8)-G060617	1706567-52A	6/6/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-26(28.8)	ATR-MW26(28.8)-G060617	1706567-52A	6/6/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-26(58.8)	ATR-MW26(58.2)-G060617	1706567-53A	6/6/2017	Acetone	13	13 J	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-26(58.8)	ATR-MW26(58.2)-G060617	1706567-53A	6/6/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-59(29)	ATR-MW59(29)-G060717	1706567-28A	6/7/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-59(29)	ATR-MW59(29)-G060717	1706567-28A	6/7/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-59(29)	ATR-MW59(29)-G060717	1706567-28A	6/7/2017	Chloroethane	1 U	1 UJ	FD	UG/L		
1706567	SW8260B	MW-59(29)	ATR-MW59(29)-G060717	1706567-28A	6/7/2017	Vinyl chloride	5.2	5.2 J	LCS-L	UG/L		
1706567	SW8260B	MW-59(29)	ATR-MW59(29)-G060717R	1706567-29A	6/7/2017	2-Butanone	11	11 J	CCV%D	UG/L		
1706567	SW8260B	MW-59(29)	ATR-MW59(29)-G060717R	1706567-29A	6/7/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-59(29)	ATR-MW59(29)-G060717R	1706567-29A	6/7/2017	Chloroethane	5.4	5.4 J	FD	UG/L		
1706567	SW8260B	MW-61(26)	ATR-MW6C-G060717	1706567-15A	6/7/2017	2-Butanone	5 U	5 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-61(26)	ATR-MW6C-G060717	1706567-15A	6/7/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-61(26)	ATR-MW6C-G060717	1706567-15A	6/7/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-61(26)	ATR-MW6C-G060717	1706567-15A	6/7/2017	Vinyl chloride	980	980 J	LCS-L	UG/L		
1706567	SW8260B	MW-62(36)	ATR-MW62(36)-G060717	1706567-16A	6/7/2017	Acetone	10 U	10 UJ	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-62(36)	ATR-MW62(36)-G060717	1706567-16A	6/7/2017	Bromomethane	1 U	1 UJ	CCV%D	UG/L		
1706567	SW8260B	MW-62(36)	ATR-MW62(36)-G060717	1706567-16A	6/7/2017	Vinyl chloride	2.3	2.3 J	LCS-L	UG/L		
1706567	SW8260B	MW-67(30)	ATR-MW67-G060817	1706567-17A	6/8/2017	Acetone	43	43 J	ICVRSD, CCV%D	UG/L		
1706567	SW8260B	MW-67(30)	ATR-MW67-G060817	1706567-17A	6/8/2017	Bromomethane	1 U	1 UJ	CCV%D, MSD-L	UG/L		
1706567	SW8260B	MW-67(30)	ATR-MW67-G060817	1706567-17A	6/8/2017	Chloromethane	1 U	1 UJ	MSD-L	UG/L		
1706567	SW8260B	MW-67(30)	ATR-MW67-G060817	1706567-17A	6/8/2017	Vinyl chloride	57	57 J	LCS-L	UG/L		

TABLE 3 - VALIDATION ACTION SUMMARY
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SGD	Method	Loc Name	Field Sample Id	Lab Sample Id	Sample Date	Param Name	Lab		Final Result	Final Qual	Val Reason Code	Result Uom
							Result Text	Lab Qual				
1706567	SW8260B	MW-68(32)	ATR-MW68-G060817	1706567-01A	6/8/2017	Acetone	98		98 J	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	MW-68(32)	ATR-MW68-G060817	1706567-01A	6/8/2017	Bromomethane	2 U		2 UJ	CCV%D, LCS-L	UG/L	
1706567	SW8260B	MW-71(33)	ATR-MW71-G060817	1706567-18A	6/8/2017	Acetone	150		150 J	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	MW-71(33)	ATR-MW71-G060817	1706567-18A	6/8/2017	Bromomethane	1 U		1 UJ	CCV%D, LCS-L	UG/L	
1706567	SW8260B	MW-71(33)	ATR-MW71-G060817	1706567-18A	6/8/2017	Vinyl chloride	460		460 J	LCS-L	UG/L	
1706567	SW8260B	MW-72(32)	ATR-MW72-G060817	1706567-02A	6/8/2017	4-Methyl-2-pentanol	2.4		2.4 J	LCS-H	UG/L	
1706567	SW8260B	MW-72(32)	ATR-MW72-G060817	1706567-02A	6/8/2017	Acetone	81		81 J	ICVRSD	UG/L	
1706567	SW8260B	MW-72(32)	ATR-MW72-G060817	1706567-02A	6/8/2017	Bromomethane	1 U		1 UJ	CCV%D	UG/L	
1706567	SW8260B	MW-76	ATR-MW76-G060817	1706567-06A	6/8/2017	Acetone	500 U		500 UJ	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	MW-76	ATR-MW76-G060817	1706567-06A	6/8/2017	Bromomethane	50 U		50 UJ	CCV%D, LCS-L	UG/L	
1706567	SW8260B	MW-77(41)	ATR-MW77-G060817	1706567-04A	6/8/2017	Acetone	10		10 J	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	MW-77(41)	ATR-MW77-G060817	1706567-04A	6/8/2017	Bromomethane	1 U		1 UJ	CCV%D	UG/L	
1706567	SW8260B	MW-78(35)	ATR-MW78-G060817	1706567-05A	6/8/2017	Acetone	10 U		10 UJ	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	MW-78(35)	ATR-MW78-G060817	1706567-05A	6/8/2017	Bromomethane	1 U		1 UJ	CCV%D, MSD-L	UG/L	
1706567	SW8260B	MW-81(27)	ATR-MW81(27)-G060717	1706567-31A	6/7/2017	Acetone	1000 U		1,000 UJ	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	MW-81(27)	ATR-MW81(27)-G060717	1706567-31A	6/7/2017	Bromomethane	100 U		100 UJ	CCV%D	UG/L	
1706567	SW8260B	MW-82(58)	ATR-MW82-G060717	1706567-25A	6/7/2017	2-Butanone	5 U		5 UJ	CCV%D	UG/L	
1706567	SW8260B	MW-82(58)	ATR-MW82-G060717	1706567-25A	6/7/2017	Acetone	10 U		10 UJ	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	OW-01(28)	ATR-OW1(28)-G060717	1706567-24A	6/7/2017	2-Butanone	5 U		5 UJ	CCV%D	UG/L	
1706567	SW8260B	OW-01(28)	ATR-OW1(28)-G060717	1706567-24A	6/7/2017	Acetone	10 U		10 UJ	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	OW-01(39)	ATR-OW1(39)-G060717	1706567-23A	6/7/2017	2-Butanone	5 U		5 UJ	CCV%D	UG/L	
1706567	SW8260B	OW-01(39)	ATR-OW1(39)-G060717	1706567-23A	6/7/2017	Acetone	10 U		10 UJ	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	OW-02(33)	ATR-OW2(33)-G060617	1706567-42A	6/6/2017	Acetone	10 U		10 UJ	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	OW-02(33)	ATR-OW2(33)-G060617	1706567-42A	6/6/2017	Bromomethane	1 U		1 UJ	CCV%D	UG/L	
1706567	SW8260B	OW-02(53)	ATR-OW2(53)-G060617	1706567-41A	6/6/2017	Acetone	10 U		10 UJ	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	OW-02(53)	ATR-OW2(53)-G060617	1706567-41A	6/6/2017	Bromomethane	1 U		1 UJ	CCV%D	UG/L	
1706567	SW8260B	OW-03(35)	ATR-OW3(35)-G060717	1706567-22A	6/7/2017	Acetone	10 U		10 UJ	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	OW-03(35)	ATR-OW3(35)-G060717	1706567-22A	6/7/2017	Bromomethane	1 U		1 UJ	CCV%D	UG/L	
1706567	SW8260B	OW-03(55)	ATR-OW3(55)-G060717	1706567-21A	6/7/2017	2-Butanone	150		150 J	CCV%D	UG/L	
1706567	SW8260B	OW-03(55)	ATR-OW3(55)-G060717	1706567-21A	6/7/2017	Acetone	11		11 J	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	OW-03(55)	ATR-OW3(55)-G060717	1706567-21A	6/7/2017	Bromomethane	1 U		1 UJ	CCV%D	UG/L	
1706567	SW8260B	OW-03(55)	ATR-OW3(55)-G060717	1706567-21A	6/7/2017	Vinyl chloride	4.8		4.8 J	LCS-L	UG/L	
1706567	SW8260B	OW-04(35)	ATR-OW4(35)-G060717	1706567-30A	6/7/2017	2-Butanone	230		230 J	CCV%D	UG/L	
1706567	SW8260B	OW-04(35)	ATR-OW4(35)-G060717	1706567-30A	6/7/2017	Acetone	16		16 J	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	OW-04(35)	ATR-OW4(35)-G060717	1706567-30A	6/7/2017	Bromomethane	1 U		1 UJ	CCV%D	UG/L	
1706567	SW8260B	OW-04(35)	ATR-OW4(35)-G060717	1706567-30A	6/7/2017	Vinyl chloride	5.2		5.2 J	LCS-L	UG/L	
1706567	SW8260B	OW-04(54)	ATR-OW4(54)-G060617	1706567-44A	6/6/2017	Acetone	10		10 J	ICVRSD, CCV%D	UG/L	
1706567	SW8260B	OW-04(54)	ATR-OW4(54)-G060617	1706567-44A	6/6/2017	Bromomethane	1 U		1 UJ	CCV%D	UG/L	
1706567	SW8260B	OW-05(16)	ATR-OW5(16)-G060617	1706567-40A	6/6/2017	Acetone	10 U		10 UJ	ICVRSD, CCV%D	UG/L	

TABLE 3 - VALIDATION ACTION SUMMARY
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
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SGD	Method	Loc Name	Field Sample Id	Lab Sample Id	Sample Date	Param Name	Lab		Final Result	Final Qual	Val Reason Code	Result Uom
							Result Text	Lab Qual				
1706567	SW8260B	OW-05(16)	ATR-OW5(16)-G060617	1706567-40A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D	UG/L
1706567	SW8260B	OW-05(35)	ATR-OW5(35)-G060617	1706567-39A	6/6/2017	Acetone	10	U	10	UJ	ICVRSD, CCV%D	UG/L
1706567	SW8260B	OW-05(35)	ATR-OW5(35)-G060617	1706567-39A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D	UG/L
1706567	SW8260B	OW-05(54)	ATR-OW5(44)-G060617	1706567-38A	6/6/2017	Acetone	10		10	J	ICVRSD, CCV%D	UG/L
1706567	SW8260B	OW-05(54)	ATR-OW5(44)-G060617	1706567-38A	6/6/2017	Bromomethane	1	U	1	UJ	LCS-L	UG/L
1706567	SW8260B	PM-2	ATR-PM2-G060717	1706567-32A	6/7/2017	2-Butanone	5	U	5	UJ	CCV%D	UG/L
1706567	SW8260B	PM-2	ATR-PM2-G060717	1706567-32A	6/7/2017	Acetone	10	U	10	UJ	ICVRSD, CCV%D	UG/L
1706567	SW8260B	PM-2	ATR-PM2-G060717	1706567-32A	6/7/2017	Bromomethane	1	U	1	UJ	CCV%D	UG/L
1706567	SW8260B	PM-2	ATR-PM2-G060717	1706567-32A	6/7/2017	Vinyl chloride	360		360	J	LCS-L	UG/L
1706567	SW8260B	PM-3	ATR-PM3-G060717	1706567-33A	6/7/2017	2-Butanone	2500	U	2,500	UJ	CCV%D	UG/L
1706567	SW8260B	PM-3	ATR-PM3-G060717	1706567-33A	6/7/2017	4-Methyl-2-pentanol	500	U	500	UJ	LCS-L	UG/L
1706567	SW8260B	PM-3	ATR-PM3-G060717	1706567-33A	6/7/2017	Acetone	5000	U	5,000	UJ	ICVRSD, CCV%D	UG/L
1706567	SW8260B	PM-3	ATR-PM3-G060717	1706567-33A	6/7/2017	Vinyl chloride	61000		61,000	J	LCS-L	UG/L
1706567	SW8260B	QC	ATR-TB001-G060617	1706567-55A	6/6/2017	Acetone	10	U	10	UJ	ICVRSD, CCV%D	UG/L
1706567	SW8260B	QC	ATR-TB001-G060617	1706567-55A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D, LCS-L	UG/L
1706567	SW8260B	QC	ATR-TB001-G060617	1706567-55A	6/6/2017	Vinyl chloride	1	U	1	UJ	LCS-L	UG/L
1706567	SW8260B	QC	ATR-TB001-G060717	1706567-56A	6/7/2017	Acetone	10	U	10	UJ	ICVRSD, CCV%D	UG/L
1706567	SW8260B	QC	ATR-TB001-G060717	1706567-56A	6/7/2017	Bromomethane	1	U	1	UJ	CCV%D	UG/L
1706567	SW8260B	QC	ATR-TB001-G060817	1706567-57A	6/8/2017	Acetone	10	U	10	UJ	ICVRSD, CCV%D	UG/L
1706567	SW8260B	QC	ATR-TB001-G060817	1706567-57A	6/8/2017	Bromomethane	1	U	1	UJ	CCV%D	UG/L
1706567	SW8260B	ZVI-2(17.5)	ATR-ZVI2(17.5)-G060617	1706567-36A	6/6/2017	Acetone	10	U	10	UJ	ICVRSD, CCV%D	UG/L
1706567	SW8260B	ZVI-2(17.5)	ATR-ZVI2(17.5)-G060617	1706567-36A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D	UG/L
1706567	SW8260B	ZVI-2(32.5)	ATR-ZVI2(32.5)-G060617	1706567-35A	6/6/2017	Acetone	16		16	J	ICVRSD, CCV%D	UG/L
1706567	SW8260B	ZVI-2(32.5)	ATR-ZVI2(32.5)-G060617	1706567-35A	6/6/2017	Bromomethane	1	U	1	UJ	CCV%D	UG/L

Units --
 UG/L = microgram per liter

Qualifiers --
 U = not detected, value is the reporting limit
 J = value is estimated

Validation Reason Codes --
 CCV%D = continuing calibration percent difference exceeds criteria
 FD = field duplicate precision outside limits
 ICVRSD = initial calibration relative standard deviation outside criteria
 LCS-H = LCS recovery greater than control limits
 LCS-L = LCS recovery less than control limits
 MS-L = MS and/or MSD recovery less than control limits

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567						
		MW-12	MW-13	MW-14	MW-15	MW-16						
		06/07/17	06/07/17	06/07/17	06/06/17	06/06/17						
		ATR-MW12-G060717	ATR-MW13-G060717	ATR-MW14-G060717	ATR-MW15-G060617	ATR-MW16-G060617						
		FS	FS	FS	FS	FS						
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1,2-Trichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1-Dichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1-Dichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,2-Dichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,2-Dichloropropane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	2-Butanone	UG/L	5 U	5 UJ	7.8	150	110 J	5 U	5 U	5 U	5 U	5 U
SW8260B	2-Hexanone	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SW8260B	4-Methyl-2-pentanone	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Acetone	UG/L	10 UJ	10 UJ	10 UJ	13 J	11 J	10 UJ	13 J	11 J	10 UJ	11 J
SW8260B	Benzene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Bromodichloromethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Bromoform	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Bromomethane	UG/L	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
SW8260B	Carbon disulfide	UG/L	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Carbon tetrachloride	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chlorobenzene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chloroform	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chloromethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Cis-1,2-Dichloroethene	UG/L	26	370	1.5	4.2	4	1 U	1 U	1 U	1 U	1 U
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Dibromochloromethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Ethylbenzene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Methylene chloride	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SW8260B	Styrene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Tetrachloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Toluene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U	2.8	1 U	24	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Trichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567						
Sample Delivery Group:		1706567	1706567	1706567	1706567	1706567						
Location:		MW-12	MW-13	MW-14	MW-15	MW-16						
Sample Date:		06/07/17	06/07/17	06/07/17	06/06/17	06/06/17						
Field Sample ID:		ATR-MW12-G060717	ATR-MW13-G060717	ATR-MW14-G060717	ATR-MW15-G060617	ATR-MW16-G060617						
Type:		FS	FS	FS	FS	FS						
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	9.6 J		150 J		1 U		8.8		44 J	
SW8260B	Xylene, o	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Xylenes (m&p)	UG/L	2 U		2 U		2 U		2 U		2 U	
SW8260B	Xylenes, Total	UG/L	3 U		3 U		3 U		3 U		3 U	
A2320 B-9	Bicarbonate Alkalinity, as C	MG/L	400		450		310		760		980	
A2320 B-9	Total Alkalinity, as CaCO3	MG/L	400		450		310		760		980	
E353.2 R2	Nitrate+Nitrite as N	MG/L	0.02 U		0.02 U		0.02 U		0.02 U		0.02 U	
SW9056A	Chloride	MG/L	22		21		10		28		22	
SW9056A	Sulfate	MG/L	3.5		56		3.7		1 U		1 U	
SW9060A	Total Organic Carbon	MG/L	59		6.7		30		600		140	
SW6020A	Iron	MG/L	24		27		7.3		83		22	
SW6020A	Manganese	MG/L	0.86		0.86		0.28		0.83		0.25	

Notes:
 EB = equipment blank
 FD = field duplicate
 FS = field Sample
 J = estimated value
 TB = Trip Blanks
 U = undetected

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
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Sample Delivery Group:	1706567	1706567	1706567	1706567	1706567
Location:	MW-17	MW-20(35)	MW-20(35)	MW-20(51)	MW-24(24.9)
Sample Date:	06/06/17	06/07/17	06/07/17	06/07/17	06/06/17
Field Sample ID:	ATR-MW17-G060617	ATR-MW20(35)-G060717	ATR-MW20(35)-G060717	ATR-MW20(51)-G060717	ATR-MW24(24.9)-G06061

Method	Parameter	Unit	FS		FS		FD		FS		FS	
			Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloropropane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	2-Butanone	UG/L	5 UJ		5 U		5 U		5 U		5 U	
SW8260B	2-Hexanone	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	4-Methyl-2-pentanone	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Acetone	UG/L	10 UJ		10 UJ		10 UJ		10 UJ		10 UJ	
SW8260B	Benzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromodichloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromoform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromomethane	UG/L	1 U		1 UJ		1 U		1 UJ		1 UJ	
SW8260B	Carbon disulfide	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Carbon tetrachloride	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloroform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Cis-1,2-Dichloroethene	UG/L	26		1 U		1 U		1 U		1 U	
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Dibromochloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Ethylbenzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Methylene chloride	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	Styrene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Tetrachloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Toluene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Trichloroethene	UG/L	78		1 U		1 U		1 U		1 U	

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
		MW-17	MW-20(35)	MW-20(35)	MW-20(51)	MW-24(24.9)				
		06/06/17	06/07/17	06/07/17	06/07/17	06/06/17				
		ATR-MW17-G060617	ATR-MW20(35)-G060717	ATR-MW20(35)-G060717	ATR-MW20(51)-G060717	ATR-MW24(24.9)-G060617				
		FS	FS	FD	FS	FS				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Xylene, o	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Xylenes (m&p)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
SW8260B	Xylenes, Total	UG/L	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
A2320 B-9	Bicarbonate Alkalinity, as Ca	MG/L	360	370	380	270	250			
A2320 B-9	Total Alkalinity, as CaCO3	MG/L	360	370	380	270	250			
E353.2 R2	Nitrate+Nitrite as N	MG/L	0.85	0.02 U	0.02 U	0.02 U	0.02 U			
SW9056A	Chloride	MG/L	21	24	24	7.5	34			
SW9056A	Sulfate	MG/L	17	2.2	1.6	1.3	19			
SW9060A	Total Organic Carbon	MG/L	2.8	6.7	7	7.1	2.6			
SW6020A	Iron	MG/L	0.56	11	11	14	1.2			
SW6020A	Manganese	MG/L	0.74	0.31	0.32	0.23	0.59			

Notes:
 EB = equipment blank
 FD = field duplicate
 FS = field Sample
 J = estimated value
 TB = Trip Blanks
 U = undetected

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

Sample Delivery Group:	1706567	1706567	1706567	1706567	1706567
Location:	MW-24(55.9)	MW-25(16.4)	MW-25(16.4)	MW-25(32.6)	MW-25(45.2)
Sample Date:	06/07/17	06/06/17	06/06/17	06/06/17	06/06/17
Field Sample ID:	TR-MW24(55.4)-G06071\TR-MW25(16.4)-G06061TR-MW25(16.4)-G06061\TR-MW25(32.6)-G06061\TR-MW25(45.2)-G06061				

Method	Parameter	Unit	FS		FS		FD		FS		FS	
			Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloropropane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	2-Butanone	UG/L	13		5 U		5 U		98		270	
SW8260B	2-Hexanone	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	4-Methyl-2-pentanone	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Acetone	UG/L	66 J		10 UJ		10 UJ		10 UJ		16 J	
SW8260B	Benzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromodichloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromoform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromomethane	UG/L	1 UJ		1 UJ		1 UJ		1 UJ		1 UJ	
SW8260B	Carbon disulfide	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Carbon tetrachloride	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloroform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Cis-1,2-Dichloroethene	UG/L	54		2.9		3.1		1 U		1 U	
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Dibromochloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Ethylbenzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Methylene chloride	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	Styrene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Tetrachloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Toluene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	trans-1,2-Dichloroethene	UG/L	5.3		1 U		1 U		1 U		1 U	
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Trichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
Sample Delivery Group:		1706567	1706567	1706567	1706567	1706567				
Location:		MW-24(55.9)	MW-25(16.4)	MW-25(16.4)	MW-25(32.6)	MW-25(45.2)				
Sample Date:		06/07/17	06/06/17	06/06/17	06/06/17	06/06/17				
Field Sample ID:		TR-MW24(55.4)-G06071	TR-MW25(16.4)-G06061	TR-MW25(16.4)-G06061	TR-MW25(32.6)-G06061	TR-MW25(45.2)-G06061				
Type:		FS	FS	FD	FS	FS				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	92	3.1	3.2	1 U	1 U			
SW8260B	Xylene, o	UG/L	1 U	1 U	1 U	1 U	1 U			
SW8260B	Xylenes (m&p)	UG/L	2 U	2 U	2 U	2 U	2 U			
SW8260B	Xylenes, Total	UG/L	3 U	3 U	3 U	3 U	3 U			
A2320 B-9	Bicarbonate Alkalinity, as Ca	MG/L	350	440	430	610	680			
A2320 B-9	Total Alkalinity, as CaCO3	MG/L	350	440	430	610	680			
E353.2 R2	Nitrate+Nitrite as N	MG/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U			
SW9056A	Chloride	MG/L	13	29	29	21	15			
SW9056A	Sulfate	MG/L	2 U	1.8	1.8	1 U	1 U			
SW9060A	Total Organic Carbon	MG/L	84	6.1	6.3	91	460			
SW6020A	Iron	MG/L	14	8.3	8	19	49			
SW6020A	Manganese	MG/L	0.3	0.45	0.43	0.39	0.61			

Notes:

- EB = equipment blank
- FD = field duplicate
- FS = field Sample
- J = estimated value
- TB = Trip Blanks
- U = undetected

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

Sample Delivery Group:	1706567	1706567	1706567	1706567	1706567
Location:	MW-26(17.5)	MW-26(28.8)	MW-26(58.8)	MW-59(29)	MW-59(29)
Sample Date:	06/06/17	06/06/17	06/06/17	06/07/17	06/07/17
Field Sample ID:	TR-MW26(17.5)-G06061\TR-MW26(28.8)-G06061\TR-MW26(58.2)-G06061\TR-MW59(29)-G06071\TR-MW59(29)-G0607171				

Method	Parameter	Unit	FS		FS		FS		FS		FD	
			Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloropropane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	2-Butanone	UG/L	5 U		5.8		89		13		11 J	
SW8260B	2-Hexanone	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	4-Methyl-2-pentanone	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Acetone	UG/L	10 UJ		10 UJ		13 J		10 UJ		10 UJ	
SW8260B	Benzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromodichloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromoform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromomethane	UG/L	1 UJ		1 UJ		1 UJ		1 UJ		1 U	
SW8260B	Carbon disulfide	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Carbon tetrachloride	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloroethane	UG/L	1 U		1 U		1 U		1 UJ		5.4 J	
SW8260B	Chloroform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Cis-1,2-Dichloroethene	UG/L	1 U		1 U		1 U		2.6		3.2	
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Dibromochloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Ethylbenzene	UG/L	1 U		1 U		1 U		3.5		3.4	
SW8260B	Methylene chloride	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	Styrene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Tetrachloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Toluene	UG/L	1 U		1 U		1 U		13		13	
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Trichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
Sample Delivery Group:		1706567	1706567	1706567	1706567	1706567				
Location:		MW-26(17.5)	MW-26(28.8)	MW-26(58.8)	MW-59(29)	MW-59(29)				
Sample Date:		06/06/17	06/06/17	06/06/17	06/07/17	06/07/17				
Field Sample ID:		\TR-MW26(17.5)-G06061\TR-MW26(28.8)-G06061		\TR-MW26(58.2)-G06061		ATR-MW59(29)-G06071\ATR-MW59(29)-G0607171				
Type:		FS	FS	FS	FS	FD				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	1 U	1 U	1 U	5.2 J	5.6			
SW8260B	Xylene, o	UG/L	1 U	1 U	1 U	3.1	3			
SW8260B	Xylenes (m&p)	UG/L	2 U	2 U	2 U	4.8	4.5			
SW8260B	Xylenes, Total	UG/L	3 U	3 U	3 U	8	7.5			
A2320 B-9	Bicarbonate Alkalinity, as Ca	MG/L	450	510	400	530	520			
A2320 B-9	Total Alkalinity, as CaCO3	MG/L	450	510	400	530	520			
E353.2 R2	Nitrate+Nitrite as N	MG/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U			
SW9056A	Chloride	MG/L	19	17	7.5	110	99			
SW9056A	Sulfate	MG/L	1 U	1 U	1 U	1.3	1 U			
SW9060A	Total Organic Carbon	MG/L	4.6	55	95	67	67			
SW6020A	Iron	MG/L	12	38	24	15	16			
SW6020A	Manganese	MG/L	0.46	0.34	0.46	1.1	1.1			

Notes:
 EB = equipment blank
 FD = field duplicate
 FS = field Sample
 J = estimated value
 TB = Trip Blanks
 U = undetected

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567						
		MW-6C	MW-62(36)	MW-67(30)	MW-68(32)	MW-71(33)						
		06/07/17	06/07/17	06/08/17	06/08/17	06/08/17						
		ATR-MW6C-G060717	ATR-MW62(36)-G060717	ATR-MW67-G060817	ATR-MW68-G060817	ATR-MW71-G060817						
		FS	FS	FS	FS	FS						
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U	1 U	1 U	1 U	2 U	1 U				
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U	1 U	1 U	1 U	2 U	1 U				
SW8260B	1,1,2-Trichloroethane	UG/L	1 U	1 U	1 U	1 U	2 U	1 U				
SW8260B	1,1-Dichloroethane	UG/L	1 U	1 U	1 U	1 U	2 U	1 U				
SW8260B	1,1-Dichloroethene	UG/L	11	1 U	1 U	1 U	2 U	1 U				
SW8260B	1,2-Dichloroethane	UG/L	1 U	1 U	1 U	1 U	2 U	1 U				
SW8260B	1,2-Dichloropropane	UG/L	1 U	1 U	1 U	1 U	2 U	1 U				
SW8260B	2-Butanone	UG/L	5 UJ	5 U	6.6	110	59					
SW8260B	2-Hexanone	UG/L	5 U	5 U	5 U	10 U	5 U					
SW8260B	4-Methyl-2-pentanone	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Acetone	UG/L	10 UJ	10 UJ	43 J	98 J	150 J					
SW8260B	Benzene	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Bromodichloromethane	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Bromoform	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Bromomethane	UG/L	1 UJ	1 UJ	1 UJ	2 UJ	1 UJ					
SW8260B	Carbon disulfide	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Carbon tetrachloride	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Chlorobenzene	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Chloroethane	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Chloroform	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Chloromethane	UG/L	1 U	1 U	1 UJ	2 U	1 U					
SW8260B	Cis-1,2-Dichloroethene	UG/L	2500	1 U	16	66	11					
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Dibromochloromethane	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Ethylbenzene	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Methylene chloride	UG/L	5 U	5 U	5 U	10 U	5 U					
SW8260B	Styrene	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Tetrachloroethene	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Toluene	UG/L	1 U	1 U	1 U	2 U	40					
SW8260B	trans-1,2-Dichloroethene	UG/L	27	1 U	1 U	2 U	1 U					
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U	1 U	1 U	2 U	1 U					
SW8260B	Trichloroethene	UG/L	1 U	1 U	1 U	2 U	1 U					

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
		MW-6C	MW-62(36)	MW-67(30)	MW-68(32)	MW-71(33)				
		06/07/17	06/07/17	06/08/17	06/08/17	06/08/17				
		ATR-MW6C-G060717	ATR-MW62(36)-G060717	ATR-MW67-G060817	ATR-MW68-G060817	ATR-MW71-G060817				
		FS	FS	FS	FS	FS				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	980 J	2.3 J	57 J	540			460 J	
SW8260B	Xylene, o	UG/L	1 U	1 U	1 U	2 U			1 U	
SW8260B	Xylenes (m&p)	UG/L	2 U	2 U	2 U	4 U			2 U	
SW8260B	Xylenes, Total	UG/L	3 U	3 U	3 U	6 U			3 U	
A2320 B-9	Bicarbonate Alkalinity, as Ca	MG/L	380	420	550	720			1000	
A2320 B-9	Total Alkalinity, as CaCO3	MG/L	380	420	550	720			1000	
E353.2 R2	Nitrate+Nitrite as N	MG/L	0.02 U	0.02 U	0.02 U	0.02 U			0.02 U	
SW9056A	Chloride	MG/L	63	24	110	110			170	
SW9056A	Sulfate	MG/L	5.8	1 U	2.9	5 U			2 U	
SW9060A	Total Organic Carbon	MG/L	10	42	210	350			580	
SW6020A	Iron	MG/L	2.1	27	100	52			79	
SW6020A	Manganese	MG/L	0.57	2.1	2.3	1.9			3.4	

Notes:
 EB = equipment blank
 FD = field duplicate
 FS = field Sample
 J = estimated value
 TB = Trip Blanks
 U = undetected

TABLE 4 - FINAL RESULTS
DATA VALIDATION REPORT
JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA

Sample Delivery Group:			1706567	1706567	1706567	1706567	1706567					
Location:			MW-72(32)	MW-76	MW-77(41)	MW-78(35)	MW-81(27)					
Sample Date:			06/08/17	06/08/17	06/08/17	06/08/17	06/07/17					
Field Sample ID:			ATR-MW72-G060817	ATR-MW76-G060817	ATR-MW77-G060817	ATR-MW78-G060817	ATR-MW81(27)-G060717					
Type:			FS	FS	FS	FS	FS					
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	1,1,2-Trichloroethane	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	1,1-Dichloroethane	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	1,1-Dichloroethene	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	1,2-Dichloroethane	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	1,2-Dichloropropane	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	2-Butanone	UG/L	47		250 U		8		5 U		500 U	
SW8260B	2-Hexanone	UG/L	5 U		250 U		5 U		5 U		500 U	
SW8260B	4-Methyl-2-pentanone	UG/L	2.4 J		50 U		1 U		1 U		100 U	
SW8260B	Acetone	UG/L	81 J		500 UJ		10 J		10 UJ		1000 UJ	
SW8260B	Benzene	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Bromodichloromethane	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Bromoform	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Bromomethane	UG/L	1 UJ		50 UJ		1 UJ		1 UJ		100 UJ	
SW8260B	Carbon disulfide	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Carbon tetrachloride	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Chlorobenzene	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Chloroethane	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Chloroform	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Chloromethane	UG/L	1 U		50 U		1 U		1 UJ		100 U	
SW8260B	Cis-1,2-Dichloroethene	UG/L	8.8		630		2.9		1 U		7000	
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Dibromochloromethane	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Ethylbenzene	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Methylene chloride	UG/L	5 U		250 U		5 U		5 U		500 U	
SW8260B	Styrene	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Tetrachloroethene	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Toluene	UG/L	30		50 U		1 U		1 U		100 U	
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U		50 U		1 U		1 U		100 U	
SW8260B	Trichloroethene	UG/L	1 U		50 U		1 U		1 U		100 U	

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
Sample Delivery Group:		1706567	1706567	1706567	1706567	1706567				
Location:		MW-72(32)	MW-76	MW-77(41)	MW-78(35)	MW-81(27)				
Sample Date:		06/08/17	06/08/17	06/08/17	06/08/17	06/07/17				
Field Sample ID:		ATR-MW72-G060817	ATR-MW76-G060817	ATR-MW77-G060817	ATR-MW78-G060817	ATR-MW81(27)-G060717				
Type:		FS	FS	FS	FS	FS				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	6.5	11000	53	1 U	24000			
SW8260B	Xylene, o	UG/L	1 U	50 U	1 U	1 U	100 U			
SW8260B	Xylenes (m&p)	UG/L	2 U	100 U	2 U	2 U	200 U			
SW8260B	Xylenes, Total	UG/L	3 U	150 U	3 U	3 U	300 U			
A2320 B-9'	Bicarbonate Alkalinity, as Ca	MG/L	1100	630	170	500	200			
A2320 B-9'	Total Alkalinity, as CaCO3	MG/L	1100	630	170	500	200			
E353.2 R2	Nitrate+Nitrite as N	MG/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U			
SW9056A	Chloride	MG/L	91	110	12	11	170			
SW9056A	Sulfate	MG/L	1 U	1 U	2 U	1 U	1 U			
SW9060A	Total Organic Carbon	MG/L	560	500	47	150	170			
SW6020A	Iron	MG/L	71	41	2.1	6.4	93			
SW6020A	Manganese	MG/L	3.1	1.3	0.27	0.86	0.86			

Notes:
 EB = equipment blank
 FD = field duplicate
 FS = field Sample
 J = estimated value
 TB = Trip Blanks
 U = undetected

TABLE 4 - FINAL RESULTS
DATA VALIDATION REPORT
JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA

Sample Delivery Group:	1706567	1706567	1706567	1706567	1706567
Location:	MW-82(58)	OW-01(28)	OW-01(39)	OW-02(33)	OW-02(53)
Sample Date:	06/07/17	06/07/17	06/07/17	06/06/17	06/06/17
Field Sample ID:	ATR-MW82-G060717	ATR-OW1(28)-G060717	ATR-OW1(39)-G060717	ATR-OW2(33)-G060617	ATR-OW2(53)-G060617
Type:	FS	FS	FS	FS	FS

Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloropropane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	2-Butanone	UG/L	5 UJ		5 UJ		5 UJ		5 U		5 U	
SW8260B	2-Hexanone	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	4-Methyl-2-pentanone	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Acetone	UG/L	10 UJ		10 UJ		10 UJ		10 UJ		10 UJ	
SW8260B	Benzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromodichloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromoform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromomethane	UG/L	1 U		1 U		1 U		1 UJ		1 UJ	
SW8260B	Carbon disulfide	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Carbon tetrachloride	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloroform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Cis-1,2-Dichloroethene	UG/L	1 U		1 U		1 U		1.7		1 U	
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Dibromochloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Ethylbenzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Methylene chloride	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	Styrene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Tetrachloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Toluene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Trichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
Sample Delivery Group:		1706567	1706567	1706567	1706567	1706567				
Location:		MW-82(58)	OW-01(28)	OW-01(39)	OW-02(33)	OW-02(53)				
Sample Date:		06/07/17	06/07/17	06/07/17	06/06/17	06/06/17				
Field Sample ID:		ATR-MW82-G060717	ATR-OW1(28)-G060717	ATR-OW1(39)-G060717	ATR-OW2(33)-G060617	ATR-OW2(53)-G060617				
Type:		FS	FS	FS	FS	FS				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	1 U	2.3	1 U	2.2	1 U	1 U		
SW8260B	Xylene, o	UG/L	1 U	1 U	1 U	1 U	1 U	1 U		
SW8260B	Xylenes (m&p)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U		
SW8260B	Xylenes, Total	UG/L	3 U	3 U	3 U	3 U	3 U	3 U		
A2320 B-9'	Bicarbonate Alkalinity, as Ca	MG/L	310	350	270	390	480			
A2320 B-9'	Total Alkalinity, as CaCO3	MG/L	310	350	270	390	480			
E353.2 R2	Nitrate+Nitrite as N	MG/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U			
SW9056A	Chloride	MG/L	18	56	19	28	16			
SW9056A	Sulfate	MG/L	1 U	8.2	1 U	2 U	21			
SW9060A	Total Organic Carbon	MG/L	4.9	6.4	6.2	18	5.8			
SW6020A	Iron	MG/L	26	14	9.7	9.2	20			
SW6020A	Manganese	MG/L	0.31	2.2	0.42	0.85	0.16			

Notes:
 EB = equipment blank
 FD = field duplicate
 FS = field Sample
 J = estimated value
 TB = Trip Blanks
 U = undetected

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

Sample Delivery Group:	1706567	1706567	1706567	1706567	1706567
Location:	OW-03(35)	OW-03(55)	OW-04(35)	OW-04(54)	OW-05(16)
Sample Date:	06/07/17	06/07/17	06/07/17	06/06/17	06/06/17
Field Sample ID:	ATR-OW3(35)-G060717	ATR-OW3(55)-G060717	ATR-OW4(35)-G060717	ATR-OW4(54)-G060617	ATR-OW5(16)-G060617

Method	Parameter	Unit	Type: FS		FS		FS		FS		FS	
			Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1,2-Trichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,1-Dichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	1,2-Dichloropropane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	2-Butanone	UG/L	5 U		150 J		230 J		26		5 U	
SW8260B	2-Hexanone	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	4-Methyl-2-pentanone	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Acetone	UG/L	10 UJ		11 J		16 J		10 J		10 UJ	
SW8260B	Benzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromodichloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromoform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Bromomethane	UG/L	1 UJ		1 UJ		1 UJ		1 UJ		1 UJ	
SW8260B	Carbon disulfide	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Carbon tetrachloride	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chlorobenzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloroethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloroform	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Chloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Cis-1,2-Dichloroethene	UG/L	1 U		11		1.9		1 U		1 U	
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Dibromochloromethane	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Ethylbenzene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Methylene chloride	UG/L	5 U		5 U		5 U		5 U		5 U	
SW8260B	Styrene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Tetrachloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Toluene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U		4.8		1.3		1 U		1 U	
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		1 U		1 U	
SW8260B	Trichloroethene	UG/L	1 U		1 U		1 U		1 U		1 U	

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
Sample Delivery Group:		1706567	1706567	1706567	1706567	1706567				
Location:		OW-03(35)	OW-03(55)	OW-04(35)	OW-04(54)	OW-05(16)				
Sample Date:		06/07/17	06/07/17	06/07/17	06/06/17	06/06/17				
Field Sample ID:		ATR-OW3(35)-G060717	ATR-OW3(55)-G060717	ATR-OW4(35)-G060717	ATR-OW4(54)-G060617	ATR-OW5(16)-G060617				
Type:		FS	FS	FS	FS	FS				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	1 U	4.8 J	5.2 J	1 U	1.6			
SW8260B	Xylene, o	UG/L	1 U	1 U	1 U	1 U	1 U			
SW8260B	Xylenes (m&p)	UG/L	2 U	2 U	2 U	2 U	2 U			
SW8260B	Xylenes, Total	UG/L	3 U	3 U	3 U	3 U	3 U			
A2320 B-9	Bicarbonate Alkalinity, as Ca	MG/L	310	610	1200	710	330			
A2320 B-9	Total Alkalinity, as CaCO3	MG/L	310	610	1200	710	330			
E353.2 R2	Nitrate+Nitrite as N	MG/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U			
SW9056A	Chloride	MG/L	19	16	14	4.5	24			
SW9056A	Sulfate	MG/L	23	1 U	1 U	1 U	6.2			
SW9060A	Total Organic Carbon	MG/L	4.1	580	530	450	4.5			
SW6020A	Iron	MG/L	13	150	97	8.8	5.2			
SW6020A	Manganese	MG/L	0.56	0.32	1.8	0.17	0.3			

Notes:

- EB = equipment blank
- FD = field duplicate
- FS = field Sample
- J = estimated value
- TB = Trip Blanks
- U = undetected

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567		1706567		1706567		1706567		1706567		
		OW-05(35)		OW-05(54)		PM-2		PM-3		QC		
		06/06/17		06/06/17		06/07/17		06/07/17		06/06/17		
		ATR-OW5(35)-G060617		ATR-OW5(44)-G060617		ATR-PM2-G060717		ATR-PM3-G060717		ATR-TB001-G060617		
		FS		FS		FS		FS		TB		
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	1,1,2-Trichloroethane	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	1,1-Dichloroethane	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	1,1-Dichloroethene	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	1,2-Dichloroethane	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	1,2-Dichloropropane	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	2-Butanone	UG/L	5 U		140		5 UJ		2500 UJ		5 U	
SW8260B	2-Hexanone	UG/L	5 U		5 U		5 U		2500 U		5 U	
SW8260B	4-Methyl-2-pentanone	UG/L	1 U		1 U		1 U		500 UJ		1 U	
SW8260B	Acetone	UG/L	10 UJ		10 J		10 UJ		5000 UJ		10 UJ	
SW8260B	Benzene	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Bromodichloromethane	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Bromoform	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Bromomethane	UG/L	1 UJ		1 UJ		1 UJ		500 U		1 UJ	
SW8260B	Carbon disulfide	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Carbon tetrachloride	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Chlorobenzene	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Chloroethane	UG/L	1 U		1 U		2.6		500 U		1 U	
SW8260B	Chloroform	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Chloromethane	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Cis-1,2-Dichloroethene	UG/L	1 U		1 U		12		6200		1 U	
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Dibromochloromethane	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Ethylbenzene	UG/L	1 U		1 U		7.6		500 U		1 U	
SW8260B	Methylene chloride	UG/L	5 U		5 U		5 U		2500 U		5 U	
SW8260B	Styrene	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Tetrachloroethene	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Toluene	UG/L	1 U		1 U		3.8		500 U		1 U	
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U		1 U		1.2		500 U		1 U	
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U		1 U		1 U		500 U		1 U	
SW8260B	Trichloroethene	UG/L	1 U		1 U		1 U		500 U		1 U	

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
		OW-05(35)	OW-05(54)	PM-2	PM-3	QC				
		06/06/17	06/06/17	06/07/17	06/07/17	06/06/17				
		ATR-OW5(35)-G060617	ATR-OW5(44)-G060617	ATR-PM2-G060717	ATR-PM3-G060717	ATR-TB001-G060617				
		FS	FS	FS	FS	TB				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	1 U	1 U	360 J	61000 J	1 UJ			
SW8260B	Xylene, o	UG/L	1 U	1 U	2	500 U	1 U			
SW8260B	Xylenes (m&p)	UG/L	2 U	2 U	7.5	1000 U	2 U			
SW8260B	Xylenes, Total	UG/L	3 U	3 U	9.5	1500 U	3 U			
A2320 B-9'	Bicarbonate Alkalinity, as Ca	MG/L	390	1100	450	340				
A2320 B-9'	Total Alkalinity, as CaCO3	MG/L	390	1100	450	340				
E353.2 R2	Nitrate+Nitrite as N	MG/L	0.02 U	0.02 U	0.02 U	0.02 U				
SW9056A	Chloride	MG/L	8	16	33	110				
SW9056A	Sulfate	MG/L	1.5	1 U	2.7	1 U				
SW9060A	Total Organic Carbon	MG/L	29	280	19	810				
SW6020A	Iron	MG/L	27	99	12	53				
SW6020A	Manganese	MG/L	0.79	2	1.4	2.1				

Notes:
 EB = equipment blank
 FD = field duplicate
 FS = field Sample
 J = estimated value
 TB = Trip Blanks
 U = undetected

TABLE 4 - FINAL RESULTS
DATA VALIDATION REPORT
JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA

Sample Delivery Group:			1706567	1706567	1706567	1706567	1706567			
Location:			QC	QC	QC	QC	QC			
Sample Date:			06/06/17	06/06/17	06/06/17	06/07/17	06/07/17			
Field Sample ID:			ATR-EB001-G060617	ATR-EB002-G060617	ATR-EB003-G060617	ATR-TB001-G060717	ATR-EB002-G060717			
Type:			EB	EB	EB	TB	EB			
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1,2-Trichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1-Dichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1-Dichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,2-Dichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,2-Dichloropropane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	2-Butanone	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SW8260B	2-Hexanone	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SW8260B	4-Methyl-2-pentanone	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Acetone	UG/L	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
SW8260B	Benzene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Bromodichloromethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Bromoform	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Bromomethane	UG/L	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
SW8260B	Carbon disulfide	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Carbon tetrachloride	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chlorobenzene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chloroform	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chloromethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Cis-1,2-Dichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Dibromochloromethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Ethylbenzene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Methylene chloride	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SW8260B	Styrene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Tetrachloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Toluene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Trichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
Sample Delivery Group:		1706567	1706567	1706567	1706567	1706567				
Location:		QC	QC	QC	QC	QC				
Sample Date:		06/06/17	06/06/17	06/06/17	06/07/17	06/07/17				
Field Sample ID:		ATR-EB001-G060617	ATR-EB002-G060617	ATR-EB003-G060617	ATR-TB001-G060717	ATR-EB002-G060717				
Type:		EB	EB	EB	TB	EB				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Xylene, o	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Xylenes (m&p)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
SW8260B	Xylenes, Total	UG/L	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
A2320 B-9	Bicarbonate Alkalinity, as Ca	MG/L								
A2320 B-9	Total Alkalinity, as CaCO3	MG/L								
E353.2 R2	Nitrate+Nitrite as N	MG/L								
SW9056A	Chloride	MG/L								
SW9056A	Sulfate	MG/L								
SW9060A	Total Organic Carbon	MG/L								
SW6020A	Iron	MG/L								
SW6020A	Manganese	MG/L								

Notes:
 EB = equipment blank
 FD = field duplicate
 FS = field Sample
 J = estimated value
 TB = Trip Blanks
 U = undetected

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

Sample Delivery Group:			1706567	1706567	1706567	1706567	1706567			
Location:			QC	QC	QC	QC	QC			
Sample Date:			06/07/17	06/07/17	06/08/17	06/08/17	06/08/17			
Field Sample ID:			ATR-EB001-G060717	ATR-EB003-G060617	ATR-TB001-G060817	ATR-EB001-G060817	ATR-EB002-G060817			
Type:			EB	EB	TB	EB	EB			
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1,2-Trichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1-Dichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,1-Dichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,2-Dichloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	1,2-Dichloropropane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	2-Butanone	UG/L	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
SW8260B	2-Hexanone	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SW8260B	4-Methyl-2-pentanone	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Acetone	UG/L	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
SW8260B	Benzene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Bromodichloromethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Bromoform	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Bromomethane	UG/L	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
SW8260B	Carbon disulfide	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Carbon tetrachloride	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chlorobenzene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chloroethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chloroform	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Chloromethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Cis-1,2-Dichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Dibromochloromethane	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Ethylbenzene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Methylene chloride	UG/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SW8260B	Styrene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Tetrachloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Toluene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Trichloroethene	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

		1706567	1706567	1706567	1706567	1706567				
Sample Delivery Group:		1706567	1706567	1706567	1706567	1706567				
Location:		QC	QC	QC	QC	QC				
Sample Date:		06/07/17	06/07/17	06/08/17	06/08/17	06/08/17				
Field Sample ID:		ATR-EB001-G060717	ATR-EB003-G060617	ATR-TB001-G060817	ATR-EB001-G060817	ATR-EB002-G060817				
Type:		EB	EB	TB	EB	EB				
Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Xylene, o	UG/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	Xylenes (m&p)	UG/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
SW8260B	Xylenes, Total	UG/L	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
A2320 B-9	Bicarbonate Alkalinity, as Ca	MG/L								10 U
A2320 B-9	Total Alkalinity, as CaCO3	MG/L								10 U
E353.2 R2	Nitrate+Nitrite as N	MG/L								0.031
SW9056A	Chloride	MG/L								1 U
SW9056A	Sulfate	MG/L								1 U
SW9060A	Total Organic Carbon	MG/L								1.6
SW6020A	Iron	MG/L								0.08 U
SW6020A	Manganese	MG/L								0.005 U

Notes:
 EB = equipment blank
 FD = field duplicate
 FS = field Sample
 J = estimated value
 TB = Trip Blanks
 U = undetected

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

Sample Delivery Group:	1706567	1706567	1706567
Location:	QC	ZVI-2(17.5)	ZVI-2(32.5)
Sample Date:	06/08/17	06/06/17	06/06/17
Field Sample ID:	ATR-FB001-G060817	ATR-ZVI2(17.5)-G060617	ATR-ZVI2(32.5)-G060617

Method	Parameter	Unit	FB		FS		FS	
			Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	1,1,1-Trichloroethane	UG/L	1 U		1 U		1 U	
SW8260B	1,1,2,2-Tetrachloroethane	UG/L	1 U		1 U		1 U	
SW8260B	1,1,2-Trichloroethane	UG/L	1 U		1 U		1 U	
SW8260B	1,1-Dichloroethane	UG/L	1 U		1 U		1 U	
SW8260B	1,1-Dichloroethene	UG/L	1 U		1 U		1 U	
SW8260B	1,2-Dichloroethane	UG/L	1 U		1 U		1 U	
SW8260B	1,2-Dichloropropane	UG/L	1 U		1 U		1 U	
SW8260B	2-Butanone	UG/L	5 U		5 U		190	
SW8260B	2-Hexanone	UG/L	5 U		5 U		5 U	
SW8260B	4-Methyl-2-pentanone	UG/L	1 U		1 U		1 U	
SW8260B	Acetone	UG/L	10 UJ		10 UJ		16 J	
SW8260B	Benzene	UG/L	1 U		1 U		1 U	
SW8260B	Bromodichloromethane	UG/L	1 U		1 U		1 U	
SW8260B	Bromoform	UG/L	1 U		1 U		1 U	
SW8260B	Bromomethane	UG/L	1 UJ		1 UJ		1 UJ	
SW8260B	Carbon disulfide	UG/L	1 U		1 U		1 U	
SW8260B	Carbon tetrachloride	UG/L	1 U		1 U		1 U	
SW8260B	Chlorobenzene	UG/L	1 U		1 U		1 U	
SW8260B	Chloroethane	UG/L	1 U		1 U		1 U	
SW8260B	Chloroform	UG/L	1 U		1 U		1 U	
SW8260B	Chloromethane	UG/L	1 U		1 U		1 U	
SW8260B	Cis-1,2-Dichloroethene	UG/L	1 U		1 U		1 U	
SW8260B	Cis-1,3-Dichloropropene	UG/L	1 U		1 U		1 U	
SW8260B	Dibromochloromethane	UG/L	1 U		1 U		1 U	
SW8260B	Ethylbenzene	UG/L	1 U		1 U		1 U	
SW8260B	Methylene chloride	UG/L	5 U		5 U		5 U	
SW8260B	Styrene	UG/L	1 U		1 U		1 U	
SW8260B	Tetrachloroethene	UG/L	1 U		1 U		1 U	
SW8260B	Toluene	UG/L	1 U		1 U		1 U	
SW8260B	trans-1,2-Dichloroethene	UG/L	1 U		1 U		1 U	
SW8260B	trans-1,3-Dichloropropene	UG/L	1 U		1 U		1 U	
SW8260B	Trichloroethene	UG/L	1 U		1 U		1 U	

TABLE 4 - FINAL RESULTS
 DATA VALIDATION REPORT
 JUNE 2017 PERFORMANCE GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

Sample Delivery Group:	1706567	1706567	1706567
Location:	QC	ZVI-2(17.5)	ZVI-2(32.5)
Sample Date:	06/08/17	06/06/17	06/06/17
Field Sample ID:	ATR-FB001-G060817	ATR-ZVI2(17.5)-G060617	ATR-ZVI2(32.5)-G060617
Type:	FB	FS	FS

Method	Parameter	Unit	Final Resu	Final Qual	Final Resu	Final Qual	Final Resu	Final Qual
SW8260B	Vinyl chloride	UG/L	1 UJ		1 U		1 U	
SW8260B	Xylene, o	UG/L	1 U		1 U		1 U	
SW8260B	Xylenes (m&p)	UG/L	2 U		2 U		2 U	
SW8260B	Xylenes, Total	UG/L	3 U		3 U		3 U	
A2320 B-9	Bicarbonate Alkalinity, as Ca	MG/L			410		650	
A2320 B-9	Total Alkalinity, as CaCO3	MG/L			410		650	
E353.2 R2	Nitrate+Nitrite as N	MG/L			0.02 U		0.02 U	
SW9056A	Chloride	MG/L			19		15	
SW9056A	Sulfate	MG/L			1 U		1.5	
SW9060A	Total Organic Carbon	MG/L			3.9		53	
SW6020A	Iron	MG/L			16		19	
SW6020A	Manganese	MG/L			0.34		0.16	

Notes:

- EB = equipment blank
- FD = field duplicate
- FS = field Sample
- J = estimated value
- TB = Trip Blanks
- U = undetected